AFRL-IF-RS-TR-2001-108 Final Technical Report June 2001



ADVANCED TRAFFIC MANAGEMENT SYSTEMS (ATMS) RESEARCH ANALYSIS DATABASE SYSTEM

ITT Industries, Inc.

Brad Mears

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.

20010810 019

AIR FORCE RESEARCH LABORATORY INFORMATION DIRECTORATE ROME RESEARCH SITE ROME, NEW YORK This report has been reviewed by the Air Force Research Laboratory, Information Directorate, Public Affairs Office (IFOIPA) and is releasable to the National Technical Information Service (NTIS). At NTIS it will be releasable to the general public, including foreign nations.

AFRL-IF-RS-TR-2001-108 has been reviewed and is approved for publication.

APPROVED:

SCOTT S. SHYNE Project Engineer

FOR THE DIRECTOR:

WARREN H. DEBANY, Technical Advisor

Information Grid Division Information Directorate

If your address has changed or if you wish to be removed from the Air Force Research Laboratory Rome Research Site mailing list, or if the addressee is no longer employed by your organization, please notify AFRL/IFGA, 525 Brooks Road, Rome, NY 13441-4505. This will assist us in maintaining a current mailing list.

Do not return copies of this report unless contractual obligations or notices on a specific document require that it be returned.

Form Approved REPORT DOCUMENTATION PAGE OMB No. 0704-0188 Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. 2. REPORT DATE 3. REPORT TYPE AND DATES COVERED 1. AGENCY USE ONLY (Leave blank) Final May 97 - Oct 99 **JUNE 2001** 4. TITLE AND SUBTITLE 5. FUNDING NUMBERS ADVANCED TRAFFIC MANAGEMENT SYSTEMS (ATMS) RESEARCH C - F30602-97-C-0156 PE - XN7207 ANALYSIS DATABASE SYSTEM PR - R567 6. AUTHOR(S) TA - 01 **Brad Mears** WU - 02 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) 8. PERFORMING ORGANIZATION REPORT NUMBER ITT Industries, Inc., Systems Division 1500 Garden of the Gods Road N/A Colorado Springs Colorado 80907 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) 10. SPONSORING/MONITORING **AGENCY REPORT NUMBER** Air Force Research Laboratory/IFGA 525 Brooks Road AFRL-IF-RS-TR-2001-108 Rome New York 13441-4505 11. SUPPLEMENTARY NOTES Air Force Research Laboratory Project Engineer: Scott S. Shyne/IFGA/(315) 330-4819 12a. DISTRIBUTION AVAILABILITY STATEMENT 12b. DISTRIBUTION CODE APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED. 13. ABSTRACT (Maximum 200 words) The ATMS Research Analysis Database Systems (ARADS) consists of a Traffic Software Data Dictionary (TSDD) and a Traffic Software Object Model (TSOM) for application to microscopic traffic simulation and signal optimization domains. The purpose of this model is to capture a clear, consistent, unambiguous definition of the terms and definitions used in the traffic-modeling arena. As such, ARADS provides a means of integrating disparate traffic engineering software tools.

14. SUBJECT TERMS Traffic Management, Intellig	222 16. PRICE CODE		
17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UL

TABLE OF CONTENTS

LIST OF FIGURES	ii
INTRODUCTION	
General	1
Standards	1
Audience	1
Contents	1
TRAFFIC SOFTWARE DATA DICTIONARY	3
Format	3
Data Source	3
Data Definitions	4
OBJECT MODEL	171
Unified Modeling Language	171
Diagrams	172
Class Dictionary	190
Attribute Dictionary	193
APPENDIX	209
UML Object Diagrams and Terminology	209
Package	210
Class	210
Attributes	210
Relationships	211
Generalization	211
Association	211 211
Multiplicity	211
RIRLIOGRAPHY	212

LIST OF FIGURES

Figure 1	Top Level	173
Figure 2	Database Package	174
Figure 3	Facilities Generalization	175
Figure 4	Displays Generalization	176
Figure 5	Vehicles Generalization	177
Figure 6	Users Generalization	178
Figure 7	Lanes Generalization	179
Figure 8	Event Generalization	180
Figure 9	Surveillance Generalization	181
Figure 10	Network Geometry View	182
Figure 11	Fixed Time Controller View	183
Figure 12	Actuated Controller View	184
Figure 13	Vehicle View	185
Figure 14	Driver View	186
Figure 15	Transit View	187
Figure 16	Application View	188
Figure 17	Environment Subpackage	189

Introduction

General

This document was developed by ITT Industries, Inc., Systems Division (ITT) under contract to the Federal Highway Administration (FHWA), as part of a multi-year software development effort. The FHWA Advanced Traffic Management Systems (ATMS) R&D group is funding ITT to maintain and re-engineer an existing traffic simulator (CORSIM) and to develop complementary software tools.

With input from the Traffic Software Developers Task Force (TSDTF), an ITE steering group, ITT and FHWA developed Version 1.0 of the Traffic Software Data Dictionary (TSDD) and Traffic Software Object Model (TSOM) for the Traffic Analysis Problem Domain as a means of integrating disparate traffic engineering software tools. Since these tools include research and analysis tools as well as planning models, the data source is the entire traffic engineering problem domain. Version 1.0, while not comprehensive, is the first step in establishing a common data dictionary for these tools.

Standards

A working group of the Institute of Electrical and Electronics Engineers (IEEE) is developing a Standard for Data Dictionaries for Intelligent Transportation Systems. The draft standard is designated "IEEE P1489". The goal of P1489 is to facilitate the interchange of data between ITS subsystems such as Traffic Management Centers, transit systems, emergency management systems, and others. The ARADS data dictionary is documented in accordance with a draft of P1489. The ARADS object model is diagramed using UML notation.

Another group, the TMDD a committee of the Institute of Transportation Engineers (ITE), is developing a Traffic Management Data Dictionary (TMDD) in accordance with IEEE P1489. Many of the data elements which will be published in the TMDD are also applicable to the problem domain of the TSDD. Common terms have been identified and notated in the TSDD definitions.

Audience

Intended for traffic simulation software designers and developers, this document will provide a common set of terms and definitions from which to develop databases and to exchange data between traffic applications.

Contents

This document contains Version 1.0 of a Traffic Software Data Dictionary (TSDD) and its accompanying Traffic Software Object Model (TSOM). The TSDD consists of traffic terms and definitions in the same format that is used in the Traffic Management Data Dictionary (TMDD). The TSOM contains Unified Modeling Language (UML) object

model diagrams that describe object classes, their attributes and their relationships in the traffic simulation domain.

Traffic Software Data Dictionary

Version 1.0

Format

The TSDD is formatted to match the TMDD format. In as much as the data format of each item is implementation specific, some of the fields are blank. The terms are sorted alphabetically by the "Descriptive Name" and the formats for the name are:

CLASSNAME_AttributeName_datatype or "MOE"_ClassName_AttributeName_datatype or "CLASSNAME"

Definition sources are listed in the bibliography.

Data Sources

The terms and definitions in the TSDD were collected from traffic engineering documents which are listed in the bibliography. However, most came from the Highway Capacity Manual, FHWA documents and CORSIM manuals. Often terms had multiple meanings and the source documents would disagree. A priority was given to each document and the definition taken from the document of highest priority. Any definition listed without a source is original and implied from the source documents. In future versions multiple definitions for the same term will have to be included.

Data Definitions

Classification Scheme Name: IEEE P1489 Annex B Classification Scheme Version: 19971009, V0.07

Submitter Organization Name: ITT Industries, System Division

> **Last Change Date:** 19990930

Descriptive Name: ACTUATEDCONTROLLER

Descriptive Name Context: Traffic Simulation

> Definition: A controller whose phase changes can be triggered by traffic sensor data.

Definition Source:

Class Name: ActuatedController

Keywords:

Related Data Concept:

Relationship Type: **ASN1 Name:**

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: ACTUATEDCONTROLLER MaximumExtension_quantity

Descriptive Name Context: Traffic Simulation

> Definition: For a fully actuated controller, the length of time that a phase may be held in

> > green in the presence of an opposing serviceable call. The maximum extension is the maximum duration of "service green" (i.e., the duration of green beyond the end of the minimum green or variable initial interval, whichever is greater).

Definition Source: FHWA Control Systems Glossary

ActuatedController Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

ACTUATEDCONTROLLER_MaximumGap_quantity **Descriptive Name:**

Traffic Simulation **Descriptive Name Context:**

> Definition: This is the value from which gap reduction is initiated when an opposing call

occurs. This value will be equal to or greater than the vehicle extension time; it

determines the time before gap reduction.

Definition Source: FHWA Control Systems Glossary

Class Name: ActuatedController

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: ACTUATEDCONTROLLER_MaximumGreen_quantity

Descriptive Name Context: Traffic Simulation

Definition: In actuated controllers, the longest time for which a green indication will be

displayed in the presence of a call on an opposing phase.

Definition Source: FHWA Control Systems Glossary

Class Name: ActuatedController

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule: Internal Representation Layout:

Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: ACTUATEDCONTROLLER_Node_number

Descriptive Name Context: Traffic Simulation

Definition: The node number of the intersection controlled.

Definition Source:

Class Name: ActuatedController

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

ACTUATEDCONTROLLER_Type_code Descriptive Name:

Descriptive Name Context: Traffic Simulation

The controller type, e.g. 170, 2070, etc. Definition:

Definition Source:

Class Name: ActuratedController

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=NEMA, 1=....

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: APPROACH

Descriptive Name Context: Traffic Simulation Definition:

The region of an intersection through which cars approaching the intersection

from a single Segment enter the intersection.

Definition Source:

Class Name: Approach

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: APPROACH_AmberIntervalResponse_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The response of drivers to the onset of the amber indication expressed in terms

of an acceptable deceleration (fpss). This value is obtained from a default table

the correlates with a driver characteristics value.

Definition Source: CORSIM Record 144

Class Name: Approach

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: APPROACH_Azimuth_quantity

Descriptive Name Context: Traffic Simulation

Definition: The angle of this intersection approach relative to due north.

Definition Source: CORSIM Record 80

Class Name: Approach

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: APPROACH_UpstreamNode_number

Descriptive Name Context: Traffic Simulation

Definition: The upstream node number of this approach to an intersection.

Definition Source:

Class Name: Approach

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799Multiple instantiations

Descriptive Name: ARTERIAL

Descriptive Name Context: Traffic Simulation

Definition: Signalized streets that serve primarily through traffic and provide access to

abutting properties as a secondary function, having signal spacings of 2 mi or less and turn movements at intersections that usually do not exceed 20 percent

of total traffic.

Definition Source: HCM A-1

Class Name: Arterial

Keywords:

Related Data Concept:

Relationship Type: **ASN1 Name:**

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: ARTERIAL&SYSTEMCOORDINATIONHARDWARE

Descriptive Name Context: Traffic Simulation

Any hardware used to coordinate traffic on arterials or within a traffic system. Definition:

Traffic Engineering, McShane, et al **Definition Source:**

> Class Name: Arterial

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: BICYCLE

Descriptive Name Context: Traffic Simulation

A vehicle having two tandem wheels propelled solely by human power, upon **Definition:**

which any person or person may ride.

Definition Source: HCM 14-1

Class Name: Bicycle

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

BICYCLELANE Descriptive Name: Traffic Simulation Descriptive Name Context:

A portion of a road which has been designated by striping, signing, and **Definition:**

pavement markings for the preferential or exclusive use of bicyclists.

Definition Source: HCM 14-3 Class Name: BicycleLane

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name: ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: **Internal Layout Maximum Size:**

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

Descriptive Name Context: Traffic Simulation

> Definition: A heavy vehicle involved in the transport of passengers on a for-hire, charter,

> > or franchised transit basis.

Definition Source: HCM A-1 Bus

Class Name:

Keywords: Related Data Concept: Relationship Type: **ASN1 Name:**

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: CURVE

Descriptive Name Context: Traffic Simulation

> Definition: An arbitrarily shaped line in two dimensions. The curve must have continuity at

> > all points. In other words, it must be one connected piece, but it can have sharp

corners (or not) anywhere.

Definition Source:

Class Name: Curve

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: CURVE_EndPoint_quantity

Descriptive Name Context: Traffic Simulation

Definition: The distance on the link from the upstream end to the end of the curve.

Definition Source: TWOPAS

Class Name: Curve

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: CURVE_Radius_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The radius of the curve.

Definition Source: TWOPAS

Class Name: Curve

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: CURVE_StartPoint_quantity

Descriptive Name Context: Traffic Simulation

Definition:

The distance on the link from the upstream end to the beginning of the curve.

Definition Source: TWOPAS

Class Name: Curve

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

DEPARTURE

Descriptive Name Context:

Traffic Simulation

Definition:

The region of an intersection through which vehicles leave the intersection.

Definition Source:

Class Name: Departure

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name: ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

DEPARTURE_DownStreamNode_number

Descriptive Name Context:

Traffic Simulation

Definition:

The downstream node number of the departure link.

Definition Source:

Class Name:

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type:

Integer

Departure

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

DETECTOR

Detector

Descriptive Name Context:

Traffic Simulation

Definition:

A device for indicating the presence or passage of vehicles or pedestrians. This

general term is usually supplemented with a modifier, i.e., loop detector,

magnetic detector indicating type.

Definition Source:

FHWA Control Systems Glossary

Class Name:

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: DETECTOR_Approach_number

Descriptive Name Context: Traffic Simulation

Definition: The approach this detector is in.

Definition Source:

Class Name: Detector

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: DETECTOR_CarryOverTime_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The amount of time to continue input to the phase after the vehicle has left the

> > detection area.

Definition Source: CORSIM Manual 5-74

> Class Name: Detector

> > Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: DETECTOR_DelayTime_quantity

Descriptive Name Context: Traffic Simulation

Definition: The input delay time to a phase while the phase is in red.

Definition Source: CORSIM Manual 5-74

Class Name: Detector

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

DETECTOR DistanceToStopLine_quantity **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

> Definition: The distance between the trailing edge of the detector sensing zone and the stop

> > line.

Definition Source: CORSIM Detector

Class Name:

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: DETECTOR_Length_quantity

Descriptive Name Context: Traffic Simulation

Definition: The length of the detecting zone from leading edge of the sensing zone to the

trailing edge of the sensing zone.

Definition Source: CORSIM

> Class Name: Detector

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799 Descriptive Name:

DETECTOR_Mode_code

Descriptive Name Context:

Traffic Simulation

Definition:

The detector mode.

Definition Source:

Class Name: Detector

CORSIM

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=analog, 1=digital

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

DETECTOR_Type_code

Descriptive Name Context:

Traffic Simulation

Definition:

A code designating the type of detector. See DETECTOR_Type_code in

TMDD.

Definition Source:

CORSIM and others Detector

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

Integer

ASN1 Data Type: Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

0=Inductive Loop, 1=Magnetometer, 2=Ultrasonic, 3=Microwave, 4=Active

Infrared, 5=Passive Infrared, 6=Video Image, 7=Passive Magnetic, 8=Passive

Acoustic, 9=Acoustic Array, 10=Infrared Laser, 11=Doppler Radar

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks:

emarks: Last Change 082799

Descriptive Name:

DISPLAY

Descriptive Name Context:

Traffic Simulation

Definition:

Any device or group of devices for displaying the rules for moving or for

controlling the movement of vehicles on a roadway.

Definition Source:

Class Name: Display

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule: Internal Representation Layout:

Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: DRIVER

Descriptive Name Context: Traffic Simulation

Definition: A person or other intelligent agent operating a vehicle.

Definition Source:

Class Name: Driver

Keywords:

Related Data Concept: Relationship Type:

Relationship Type: ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: DRIVER_Aggressiveness_quantity

Descriptive Name Context: Traffic Simulation

Definition: A measure of a driver's aggressiveness in regard to maneuvering.

Definition Source: Traffic Engineering, McShane, et al

Class Name: Driver

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name: ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: DRIVER_CarFollowingFactor_quantity

Descriptive Name Context: Traffic Simulation

Definition: This value is a sensitivity factor in tenths of a second to indicate the headway

this driver will allow between his car and the car he is following.

Definition Source: CORSIM Record 68

Class Name: Driver

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks:

Last Change 082799

DRIVER_Familiarity_number **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

Definition: This is the number of next turn movements that the driver is familiar with.

Definition Source: **CORSIM Record 153**

> Class Name: Driver

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: DRIVER_Type_code

Descriptive Name Context: Traffic Simulation

> This value identifies the driver type and is used to correlate driver type Definition:

> > parameters.

Definition Source: CORSIM Record 68

> Class Name: Driver

> > Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range: 1-11

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: EMISSION_AccelerationDeceleration_code

Descriptive Name Context: Traffic Simulation

This value correlates to the Vehicle Performance Index for the specified speed Definition:

and will be applied to the emission rate.

Definition Source: CORSIM Record 172

Class Name: Emission

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: EMISSION_Rate_quantity

Descriptive Name Context: Traffic Simulation

Definition: The emission rate for the specified type at the specified speed.

Definition Source: CORSIM Record 172

Class Name: Emission

Keywords:

Related Data Concept:

Relationship Type: ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: EMISSION_Type_code

Descriptive Name Context: Traffic Simulation

Definition: This code specifies which table data is used.

Definition Source: CORSIM Record 172

Class Name: Emission

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=Fuel consumption rate, 1=HC emission rate, 2=CO emission rate, 3=NOx

emission rate.

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: EMISSION_VehiclePerformanceIndex_number

Descriptive Name Context: Traffic Simulation

Definition: This is the Vehicle Performance Index specified in the Vehicle object.

Definition Source: CORSIM Record 172

> Class Name: Emission

> > Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799See the Vehicle Class VEHICLE_PerformanceIndex_code.

Descriptive Name: EMISSION_VehiclePerformanceIndex_number

Descriptive Name Context: Traffic Simulation

Definition: This is the Vehicle Performance Index specified in the Vehicle object.

Definition Source: CORSIM Record 172

Class Name: Emission

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799See the Vehicle Class VEHICLE_PerformanceIndex_code.

Descriptive Name: EMISSION_VehicleSpeed_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The vehicle speed applicable for the specified vehicle performance index.

Definition Source: CORSIM Record 172

Class Name: **Emission**

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: EVENT

Descriptive Name Context: Traffic Simulation

Definition: Any occurrence which causes a reduction in capacity or abnormal increase in

demand on a road.

Definition Source:

Class Name: Event

Keywords:

Related Data Concept: Relationship Type: ASN1 Name: ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Cl

Last Change 082799

Descriptive Name: EVENT_Duration_time

Descriptive Name Context: Traffic Simulation

Definition: See EVENT_Description_text in TMDD

Definition Source: CORSIM Class Name: Event

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: SSSS.ssss

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: EVENT_Duration_time

Descriptive Name Context: Traffic Simulation

Definition: See EVENT Description_text in TMDD

Definition Source: CORSIM Class Name: Event

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: SSSS.ssss

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: EVENT_Length_quantity

Descriptive Name Context: Traffic Simulation

Definition: The length of the roadway affected by the event.

Definition Source: CORSIM Class Name: Event

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: **Internal Layout Minimum Size:**

> Remarks: Last Change 082799

Descriptive Name: EVENT_MeanDuration_time

Descriptive Name Context: Traffic Simulation

> Definition: The mean duration of short-term events.

Definition Source: CORSIM Record 54

> Class Name: Event

> > Keywords:

Related Data Concept:

Relationship Type: ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Lavout: **Internal Layout Maximum Size:**

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: EVENT_MeanFrequency_number

Descriptive Name Context: Traffic Simulation

Definition:

The mean frequency of short-term events. Specified as events per hour.

Definition Source: CORSIM Record 54

Class Name: Event

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: EVENT_RubberneckFactor_quantity

Descriptive Name Context: Traffic Simulation

Definition: The reduction in capacity for the affected lanes at the point of the event.

Definition Source: CORSIM

Class Name: Event

Keywords: Related Data Concept:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: EVENT_StartTime_time

Descriptive Name Context: Traffic Simulation

Definition: The time of onset for the event. See EVENT_TimelineStart_date in TMDD.

Definition Source: CORSIM
Class Name: event

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: esentation Class Term:

Representation Class Term: Value Domain:

Valid Value Range: Valid Value List: Valid Value Rule:

valid value Rule.

Internal Representation Layout: SSSS.ssss

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: EVENTENVIRONMENTAL

Descriptive Name Context: Traffic Simulation

Definition: An environmental occurrence which causes a reduction in capacity or abnormal

increase in demand on a road

Definition Source:

Class Name: EventEnvironmental

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Incident

Descriptive Name:

EVENTINCIDENT

Descriptive Name Context:

Traffic Simulation

Definition:

An (unplanned/unanticipated) occurrence in the traffic stream which causes a

reduction in capacity or abnormal increase in demand.

Definition Source:

FHWA Control Systems Glossary

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

EVENTINCIDENT_Blockage_code

Descriptive Name Context:

Traffic Simulation

Definition:

This code specifies where the blockage occurs. See

EVENT_LanesBlockedOrClosed_code and

EVENT_LanesShouldersBlocked_code in TMDD.

Definition Source:

CORSIM Record 55 EventIncident

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

0=surface street, 1=intersection, 2=freeway segment, 3=freeway on ramp,

4=freeway off ramp, 5=other

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799 **Descriptive Name:** EVENTINCIDENT_DownstreamNode_number

Descriptive Name Context: Traffic Simulation

Definition: The downstream node number for the link on which the incident occurred.

Definition Source: CORSIM Class Name: EventIncident

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

> ASN1 Data Type: integer

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: **Internal Layout Maximum Size:**

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: EVENTINCIDENT_Location_quantity

Descriptive Name Context: Traffic Simulation

Definition: The location of the upstream end of the incident from the upstream node. See

EVENT_LocationCoordinatesAltitude_location, EVENT_LocationCoordinatesLatitude_location and

EVENT_LocationCoordinatesLongitude_location in TMDD

Definition Source: CORSIM Class Name: EventIncident

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

> **ASN1 Data Type:** float

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: EVENTINCIDENT_UpstreamNode_number

Descriptive Name Context: Traffic Simulation

Definition: The upstream node number for the link on which the incident occurred.

CORSIM Definition Source: Class Name: EventIncident

Keywords:

Related Data Concept:

Relationship Type: ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule: Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: EVENTINCIDENT_WarningSignLocation_quantity

Descriptive Name Context: Traffic Simulation

Definition: The distance from the upstream node for the location of the upstream warning

sign for blockage incidents.

Definition Source: CORSIM

Class Name: EventIncident

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: EVENTPLANNED

Descriptive Name Context: Traffic Simulation

Definition: A planned occurrence which causes a reduction in capacity or abnormal increase

in demand on a road

Definition Source:

Class Name:

EventPlanned

Keywords: Related Data Concept:

elateu Data Colicept.

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: FIXEDTIMECONTROLLER

Descriptive Name Context: Traffic Simulation

Definitions Co. 1. Il destruction

Definition: Controller that operate on predetermined, fixed intervals and phase timings.

Definition Source: FHWA Control System Handbook, 7.6

Class Name: FixedTimeController

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term: Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: **Internal Layout Maximum Size:**

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: FIXEDTIMECONTROLLER_Node_number

Descriptive Name Context: Traffic Simulation

Definition: The node number of the intersection that is controlled.

Definition Source: CORSIM

> Class Name: FixedTimeController

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Last Change 082799 Remarks:

FREEWAY Capacity_quantity **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

> **Definition:** The maximum sustained (15-min) rate of flow at which traffic can pass a point

> > or uniform segment of freeway under prevailing roadway and traffic conditions. Capacity is defined for a single direction of flow, and is expressed in vehicle per

hour (vph).

HCM 3-3 **Definition Source:** Class Name: Freeway

Keywords:

Related Data Concept:

Relationship Type: ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Lavout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: FREEWAY_Density_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The number of vehicles occupying a given length of lane or roadway averaged

> > over time, usually expressed as vehicles per mile or vehicles per mile per lane.

Definition Source: HCM A-2 Class Name: Freeway

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

> ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: FREEWAY LevelOfService_code

Descriptive Name Context: Traffic Simulation

Definition: A qualitative measure describing operational conditions within a traffic stream,

> generally described in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.

Definition Source: HCM A-3 Class Name: Freeway

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range: A - F

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

FREEWAY_MaximumServiceFlowRate_quantity **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

The highest 15-min rate of flow that can be accommodated on a highway Definition:

> facility under ideal conditions while maintaining the operating characteristics for a stated level of service, expressed as passenger cars per hour per lane.

Definition Source: HCM A-3 Class Name: Freeway

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: FREEWAY_Speed_quantity

Descriptive Name Context: Traffic Simulation

Definition: A rate of motion, in distance per unit of time.

S = d / t (mph or fps).

Definition Source: Traffic Engineering, McShane, et al

Class Name: Freeway

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: FREEWAY_Volume_quantity

Descriptive Name Context: Traffic Simulation

Definition: The number of persons or vehicles passing a point on a freeway during some

time interval, often taken to be 1 hr, expressed in vehicles.

Definition Source: HCM A-5

Class Name: Freeway

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: FREEWAYRAMP

Descriptive Name Context: Traffic Simulation

Definition: A short segment of roadway serving as a connection between two traffic

facilities; usually services flow in one direction only.

Definition Source: HCM A-4

Class Name: FreewayRamp

Keywords:

Related Data Concept:

Relationship Type: ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule: Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

FREEWAYRAMP_DivergeVolume_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The total volume in the traffic stream which will separate. For the case of a one-

lane, right-side on-ramp, the diverge volume is equal to the lane 1 volume

immediately upstream of the subject ramp. HCM 5-3

Definition Source:

Class Name: FreewayRamp

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

FREEWAYRAMP_DownstreamFreewaySegmentID _number

Descriptive Name Context:

Traffic Simulation

Definition:

A unique number identifying the downstream freeway segment.

Definition Source:

CORSIM

Class Name:

FreewayRamp

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size: Remarks:

Last Change 082799

Descriptive Name: FREEWAYRAMP_FlowRate_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

Vehicles per hour per lane.

Definition Source:

Ramp Metering Glossary

Class Name: Keywords:

FreewayRamp

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

FREEWAYRAMP_FractionalOffset_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

In a group of dependent metered lanes, the start of the green interval for any lane can occur after a variable time (fraction of the cycle length) of the green interval for any lane in the same dependency group. The offset time is equal to the cycle length divided by the number of metered lanes in the dependency

group.

Definition Source:

Ramp Metering Glossary

Class Name: Keywords:

FreewayRamp

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

FREEWAYRAMP FreewayCapacity_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The capacity of the freeway in vehicles per hour per lane. Traffic Engineering, McShane, et al

Definition Source: Class Name:

FreewayRamp

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799 **Descriptive Name:** FREEWAYRAMP_FreewayLane_number

Descriptive Name Context: Traffic Simulation

Definition: Denotes the lane of the freeway that feeds lane 1 of the off-ramp, if one exists.

Definition Source: CORSIM Manual Class Name: FreewayRamp

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: FREEWAYRAMP_FreewayVolume_quantity

Descriptive Name Context: Traffic Simulation

Definition: The total freeway volume. Generally considered at the point where it is at the

maximum level, i.e., upstream of an off-ramp and downstream of an on-ramp.

Definition Source: HCM 5-3

Class Name: FreewayRamp

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: FREEWAYRAMP_LaneOccupancy _quantity

Descriptive Name Context: Traffic Simulation

Definition: The percentage of time that the ramp meter detector is actuated.

Definition Source: Ramp Metering Glossary
Class Name: FREEWAYRAMP

Keywords:

Related Data Concept:

Relationship Type: ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size: Internal Layout Minimum Size:

> Remarks: Last Change 082799

Descriptive Name:

FREEWAYRAMP_LevelOfService_code

Descriptive Name Context:

Traffic Simulation

Definition:

A qualitative measure describing operational conditions within a traffic stream,

generally described in terms of such factors as speed and travel time, freedom to

maneuver, traffic interruptions, comfort and convenience, and safety.

Definition Source:

Class Name:

FreewayRamp

HCM A-3

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Lavout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

FREEWAYRAMP MeteringHeadway_number

Descriptive Name Context:

Traffic Simulation

Definition:

The time separation (in seconds) between successive green signals in a ramp

Definition Source:

CORSIM Manual - Implied

Class Name: Keywords:

FreewayRamp

Related Data Concept:

FREEWAYRAMP_SpeedThreshold_quantity

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: SS.ssss

Internal Layout Maximum Size:

Internal Layout Minimum Size: Remarks:

Last Change 082799These values would probably be implemented as a table

with FREEWAYRAMP_SpeedThreshold_quantity.

Descriptive Name:

FREEWAYRAMP_MeteringType_code

Descriptive Name Context:

Traffic Simulation

Definition:

A system in which the entry of vehicles onto a freeway from an on-ramp is

controlled by a traffic signal allowing a fixed number of vehicles to enter during

each cycle.

Definition Source:

Ramp Metering Glossary

Class Name:

FreewayRamp

Keywords:

Related Data Concept:

Relationship Type: **ASN1 Name: ASN1 Data Type:** Representation Class Term:

Value Domain:

Valid Value Range:

0=Clock Time, 1=Demand/Capacity, 2=Gap Acceptance Merge Control, Valid Value List: 3=Isolated Pre-timed, 4=Local Coordinated, 5=Mainline, 6=Speed Control

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: FREEWAYRAMP_MeterRate_quantity

Descriptive Name Context: Traffic Simulation

> Definition: Number of vehicles allowed to enter a given section of a roadway per unit time.

Definition Source: FHWA Control Systems Glossary

Class Name: FreewayRamp

Keywords:

Related Data Concept:

Relationship Type: ASN1 Name:

> ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: FREEWAYRAMP_MeterStartTime_time

Descriptive Name Context: Traffic Simulation

> Definition: The time for the onset of metering.

Definition Source: CORSIM Class Name: FreewayRamp

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Character - Numeric String

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: HHMMSS.ssss

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: FREEWAYRAMP_NumberOfLanes_number

Descriptive Name Context: Traffic Simulation

Definition: The total number of freeway ramp lanes.

Definition Source: CORSIM Class Name: FreewayRamp

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: FREEWAYRAMP_OffRampSignLocation _location

Descriptive Name Context: Traffic Simulation

Definition:

The location of the off ramp sign on the freeway.

Definition Source: CORSIM Manual Class Name: FreewayRamp

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: FREEWAYRAMP_RampID_number

Descriptive Name Context: Traffic Simulation

> Definition: A unique number identifying the ramp. See RAMP_IdNumber_number in

TMDD.

Definition Source: CORSIM

Class Name: FreewayRamp

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

FREEWAYRAMP_RampType_code Descriptive Name:

Traffic Simulation Descriptive Name Context:

Definition: A code to indicate the type of ramp.

CORSIM Definition Source: FreewayRamp Class Name:

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name: ASN1 Data Type:**

Representation Class Term:

Value Domain: Valid Value Range:

0=On Ramp, 1=Off Ramp, 2=Freeway To Freeway Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: **Internal Layout Minimum Size:**

Remarks: Last Change 082799

 $FREEWAYRAMP_UpstreamFreewaySegmentID_number$ Descriptive Name:

Traffic Simulation Descriptive Name Context:

A unique number identifying the upstream freeway segment. **Definition:**

CORSIM Definition Source: FreewayRamp Class Name:

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

> **ASN1 Data Type:** Integer

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Last Change 082799 Remarks:

FREEWAYWEAVINGAREA Descriptive Name:

Descriptive Name Context: Traffic Simulation

Sections of the freeway where two or more vehicle flows must cross each Definition:

other's path along a length of the freeway.

HCM 3-2 **Definition Source:**

FreewayWeavingArea Class Name:

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name: ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule: Internal Representation Layout: **Internal Layout Maximum Size: Internal Layout Minimum Size:**

> Remarks: Last Change 082799

Descriptive Name:

FREEWAYWEAVINGAREA_MinimumAverageNonWeavingSpeed_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

Average minimum running speed for all non-weaving vehicles occupying a

given section of highway over some time.

Definition Source: HCM implied

Class Name:

FreewayWeavingArea

Keywords: **Related Data Concept:**

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

FREEWAYWEAVINGAREA_MinimumAverageWeavingSpeed_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

Average minimum running speed for all weaving vehicles occupying a given

section of highway over some time.

Definition Source: HCM implied

> FreewayWeavingArea Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Lavout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

FREEWAYWEAVINGAREA_Volume_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The number of persons or vehicles passing a point on a lane, roadway, or other

trafficway during some time interval, often taken to be 1 hr, expressed in

vehicles.

Definition Source: HCM A-5

> Class Name: FreewayWeavingArea

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: FUELCONSUMPTION_Rate_quantity

Descriptive Name Context: Traffic Simulation

Definition: The fuel consumption rate for the specified Vehicle Performance Index.

Definition Source: CORSIM Record 172
Class Name: FuelConsumption

Keywords:

Related Data Concept:

Relationship Type: ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: GRADE

Descriptive Name Context: Traffic Simulation

Definition: The slope of the roadway measured as a percentage of deviation from

horizontal. A vertical slope would be a grade of 100%.

Definition Source:

Class Name: Grade

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: GRADE_Location_quantity

Descriptive Name Context: Traffic Simulation

Definition: The distance on the link from the upstream end.

Definition Source: TWOPAS **Class Name:** Grade

Keywords:

Related Data Concept:

Relationship Type: ASN1 Name:

> **ASN1 Data Type:** float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

GRADE_Percent_quantity Descriptive Name:

Descriptive Name Context: Traffic Simulation

> Definition: The percent grade at a point on a link.

Definition Source: TWOPAS

Class Name: Grade

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

GRADE_SightDistance_quantity **Descriptive Name:**

Traffic Simulation Descriptive Name Context:

Definition: The sight distance at a point on a link.

Definition Source: TWOPAS Class Name: Grade

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: GUIDESIGN Descriptive Name Context: Traffic Simulation

Any traffic sign used to provide information to a motorist or pedestrian.

Definition Source:

Traffic Engineering, McShane, et al

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

GuideSign

Descriptive Name:

HIGHWAY

Descriptive Name Context:

Traffic Simulation

A non-freeway road used for intercity travel.

Definition:

Definition Source:

Class Name: **HOVLane**

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

HOVLANE

Descriptive Name Context:

Traffic Simulation

Definition:

High Occupancy Vehicle Lane. A type of lane designated for travel only by

vehicles with multiple occupants.

Definition Source:

Traffic Engineering, McShane, et al **HOVLane**

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

38

Descriptive Name:

INCIDENTDETECTION

Descriptive Name Context:

Traffic Simulation

IncidentDetection

Definition:

The arrangement of detectors and processing of detector information to arrive at the decision that some type of incident has probably occurred in the traffic stream. May also be done by visual and third-party reporting means.

FHWA Control Systems Glossary

Definition Source: Class Name:

Kevwords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

INCIDENTDETECTION_OffLineAlgorithmType_code

Descriptive Name Context:

Traffic Simulation

Definition:

This code specifies the type of algorithm to be used for off-line incident

detection.

Definition Source:

CORSIM Record 64 IncidentDetection

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

INCIDENTDETECTION_OffLineEvaluationFrequency_number

Descriptive Name Context:

Traffic Simulation

Definition:

The evaluation frequency for MOE estimation and point processing or

evaluation frequency for surveillance detectors in seconds.

Definition Source:

CORSIM Record 64

Class Name:

Keywords:

IncidentDetection

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

39

Valid Value Range: Valid Value List: Valid Value Rule: **Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:**

> Remarks: Last Change 082799

Descriptive Name:

INCIDENTDETECTION_OffLineParameterValue_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

A parameter value to be used in the detection algorithm.

Definition Source:

CORSIM Record 65 IncidentDetection

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

INCIDENTDETECTION_OffLinePollingFrequency_number

Descriptive Name Context:

Traffic Simulation

Definition:

The polling frequency of the incident detector in number / second.

Definition Source: Class Name: CORSIM Record 64 IncidentDetection

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

INCIDENTDETECTION_OffLineStationID_number

Descriptive Name Context:

Traffic Simulation

Definition:

The number of the surveillance station to be used for MOE estimation, point

processing and off-line incident detection.

Definition Source:

CORSIM Record 67 IncidentDetection

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Last Change 082799 Remarks:

Descriptive Name:

INCIDENTDETECTION_OnLineAlgorithmType_code

Descriptive Name Context:

Traffic Simulation

Definition:

This code specifies the type of algorithm to be used for on-line incident

detection.

Definition Source:

CORSIM Record 61 IncidentDetection

Class Name: Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

INCIDENTDETECTION_OnLineEvaluationFrequency_number

Descriptive Name Context:

Traffic Simulation

Definition:

The evaluation frequency for incident detection in number of time steps between

evaluations.

Definition Source:

CORSIM Record 61 IncidentDetection

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

integer

ASN1 Data Type: Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

INCIDENTDETECTION_OnLineParameterValue_quantity

Descriptive Name Context:

Traffic Simulation

Definition: A parameter value to be used in the detection algorithm.

Definition Source: CORSIM Record 62
Class Name: Incident Detection

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INCIDENTDETECTION_OnLinePollingFrequency_number

Descriptive Name Context: Traffic Simulation

Definition: The polling frequency of the incident detector in number / second.

Definition Source: CORSIM Record 61
Class Name: Incident Detection

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INCIDENTDETECTION_OnLineStationID_number

Descriptive Name Context: Traffic Simulation

Definition: The number of the surveillance station to be used for on-line incident detection.

Definition Source: CORSIM Record 63
Class Name: Incident Detection

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

INITIALIZATION Descriptive Name:

Descriptive Name Context: Traffic Simulation

Definition: Run control initialization

Definition Source:

Class Name: RCTRL

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:** ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INTERSECTION

Descriptive Name Context: Traffic Simulation

Definition: The common area of roadways that meet or cross.

FHWA Control Systems Glossary **Definition Source:**

> Class Name: Intersection

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name: ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONCONTROLLERHARDWARE

Descriptive Name Context: Traffic Simulation

> Definition: Any hardware device used to control traffic at intersections.

Definition Source: FHWA Control Systems Glossary IntersectionControllerHardware Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

INTERSECTIONDISPLAYHARDWARE Descriptive Name:

Descriptive Name Context: Traffic Simulation

Any hardware display device used to control traffic at intersections. Definition:

Traffic Engineering, McShane, et al **Definition Source:** Class Name: IntersectionDisplayHardware

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: **Internal Layout Minimum Size:**

Last Change 082799 Remarks:

Descriptive Name: INTERSECTIONSIGNALIZED

Descriptive Name Context: Traffic Simulation

Definition: An intersection whose traffic is controlled by a controller.

Definition Source: HCM Implied

IntersectionSignalized Class Name:

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule: **Internal Representation Layout:**

Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

INTERSECTIONSIGNALIZED_AllowableGap_quantity **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

The time gap between successive moving vehicles at which a greater gap should Definition:

terminate the green on one phase and transfer right-of-way to another phase.

FHWA Control Systems Glossary **Definition Source:**

> Class Name: IntersectionSignalized

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

INTERSECTIONSIGNALIZED_AmberIntervalResponse_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The response of drivers to the onset of the amber indication is expressed in terms of an acceptable deceleration. The deceleration that is required for the vehicle to stop is readily calculated, knowing the current position and speed of the vehicle. If deceleration is acceptable the vehicle will stop; otherwise, it will

continue through the intersection.

Definition Source:

FHWA Control Systems Glossary

IntersectionSignalized

Class Name:

Kevwords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

INTERSECTIONSIGNALIZED_ApproachDelay_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

Stopped-time delay at a signalized intersection plus time lost because of deceleration to

and acceleration from a stop, generally estimated as

1.3 times the stopped time delay.

Definition Source: HCM A-1

Class Name:

IntersectionSignalized

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

INTERSECTIONSIGNALIZED_AverageStoppedTimeDelay quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The total time vehicles are stopped in an intersection approach or lane group during a specified time interval divided by the volume departing from the approach or lane group

during the same time period, in seconds per vehicle.

Definition Source: HCM A-1

Class Name: IntersectionSignalized

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONSIGNALIZED_BackgroundCycle_quantity

Descriptive Name Context: Traffic Simulation

Definition: The term used to identify the cycle length established by a coordination unit and

master control in coordinated systems.

Definition Source: FHWA Control Systems Glossary

Class Name: IntersectionSignalized

Keywords:

Related Data Concept:

Relationship Type: ASN1 Name:

ASN1 Data Type: floa

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONSIGNALIZED_Call_code

Descriptive Name Context: Traffic Simulation

Definition: A registration of a demand for right-of-way by traffic at a controller unit. The

call to the controller is via detector actuation.

Definition Source: FHWA Control Systems Glossary

Class Name: IntersectionSignalized

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: floa

ASIAI Data Type. 110

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

INTERSECTIONSIGNALIZED_ChangeInterval_quantity **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

The "yellow" plus "all red" intervals that occur between phases of a traffic signal to Definition:

provide for clearance of the intersection before conflicting movements are released.

Definition Source: HCM A-1

Class Name:

IntersectionSignalized

Keywords: **Related Data Concept:**

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONSIGNALIZED_CycleLength_code

Descriptive Name Context: Traffic Simulation

Definition: The time required for one complete sequence of signal phases.

Definition Source: FHWA Control Systems Glossary

Class Name: IntersectionSignalized

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: number

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONSIGNALIZED_DetectorSetback_quantity

Descriptive Name Context: Traffic Simulation

Definition:

The time required for one complete sequence of signal phases.

Definition Source: FHWA Control Systems Glossary

IntersectionSignalized

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONSIGNALIZED_DetectorType_code

Descriptive Name Context: Traffic Simulation

Definition: A device for indicating the presence or passage of vehicles or pedestrians. This

general term is usually supplemented with a modifier, i.e., loop detector,

magnetic detector indicating type.

Definition Source: FHWA Control Systems Glossary

Class Name: IntersectionSignalized

Keywords:

Related Data Concept: Relationship Type: ASN1 Name: ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=Check-In, 1=Check_Out, 2=Merge, 3=Queue, 4=Demand, 5=Passage,

6=Induction, 7=Video Image

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONSIGNALIZED_DischargeHeadway_quantity

Descriptive Name Context: Traffic Simulation

Definition: The mean time gap between vehicles discharging from a standing queue.

Definition Source: CORSIM User's Guide 5-22

Class Name: Intersection Signalized

Kevwords:

Related Data Concept:

Relationship Type: ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONSIGNALIZED_EffectiveGreen_quantity

Descriptive Name Context: Traffic Simulation

Definition: The time allocated for a given traffic movement (green plus yellow) at a signalized

intersection less the start-up and clearance lost times for the movement.

Definition Source: HCM A-2

Class Name: IntersectionSignalized

Keywords:

Related Data Concept: Relationship Type:

......

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

float

Descriptive Name:

INTERSECTIONSIGNALIZED_EffectiveRed_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The time during which a given traffic movement or set of movements is directed to stop;

cycle length minus effective green time.

Definition Source:

HCM A-2

Class Name:

IntersectionSignalized

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

INTERSECTIONSIGNALIZED_LagPhase_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The lag phase setting designates which phase of a phase pair displays green first, before the other phase. A phase pair is defined as adjacent phases in the same ring on the same side of the barrier on a standard NEMA phase diagram. In a standard NEMA 8 phase configuration operating in leading dual lefts on both streets, phases 2, 4, 6 and 8 are lag phases while phases 1, 3, 5, and 7 are

leading phases.

Definition Source:

FHWA Control Systems Glossary IntersectionSignalized

Class Name: Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks:

Last Change 082799

Descriptive Name: INTERSECTIONSIGNALIZED_MaximumSpeedLeftTurn_quantity

Descriptive Name Context: Traffic Simulation

Definition: Moving vehicles must slow as they approach an intersection if they are to

negotiate a turning maneuver, even when unimpeded by other vehicles. The default turning speed for negotiating left turns is 22 fps (7 m/s). The maximum

allowable left turn speed is 44 fps (14 m/s).

Definition Source: FHWA Control Systems Glossary

> Class Name: IntersectionSignalized

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONSIGNALIZED_MaximumSpeedRightTurn_quantity

Descriptive Name Context: Traffic Simulation

> Definition: Moving vehicles must slow as they approach an intersection if they are to

negotiate a turning maneuver, even when unimpeded by other vehicles. The default turning speed for negotiating right turns is 13 fps (4 m/s). The maximum

allowable right turn speed is 26 fps (8 m/s).

Definition Source: FHWA Control Systems Glossary

> Class Name: IntersectionSignalized

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONSIGNALIZED_PedestrianDelay_quantity

Descriptive Name Context: Traffic Simulation

> **Definition:** The duration of vehicular delay due to pedestrian interaction during a vehicle

> > green phase.

Definition Source: FHWA Control Systems Glossary

> Class Name: IntersectionSignalized

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term: Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: $INTERSECTIONSIGNALIZED_ProbabilityLeftTurnJump_quantity$

Descriptive Name Context: Traffic Simulation

Definition: A left turn jumper is a vehicle that is first in queue when a signal changes to

green and executes a left turn maneuver before the oncoming traffic moves.

Definition Source: FHWA Control Systems Glossary

> Class Name: IntersectionSignalized Keywords:

> > float

Related Data Concept:

Relationship Type: ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONSIGNALIZED_StartingDelay_quantity

Descriptive Name Context: Traffic Simulation

> Definition: A delay experienced in initiating the movement of queued traffic from a stop to

a maximum flow rate through a signalized intersection.

Definition Source: FHWA Control Systems Glossary

Class Name: IntersectionSignalized

Start-up Lost Time Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONSIGNALIZED_StartupLostTime_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The delay experienced by the first vehicle in queue when responding to a phase

> > change from red to green.

Definition Source: CORSIM User's Guide 5-22 Class Name: Intersection Signalized

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONSIGNALIZED_StopDelay_quantity

Descriptive Name Context: Traffic Simulation

Definition: For each turn movement, the total time that vehicles of the specified turn

movement were stopped on the link. Stop time is defined as any time that a

vehicle is stopped on a link including buses in dwell.

Definition Source: FHWA Control Systems Glossary

Class Name: IntersectionSignalized Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONUNSIGNALIZEDCONTROLLED

Descriptive Name Context: Traffic Simulation

Definition: An intersection that is controlled by devices other than signals, such as stop

signs

Definition Source:

Class Name: IntersectionUnsignalizedControlled

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

INTERSECTIONUNSIGNALIZEDCONTROLLED_AcceptanceGap_quantity **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

Definition: A vehicle at a stop line facing a sign cannot discharge until an acceptable gap is

available in the cross-street traffic. The acceptable gap depends on the type of sign, driver characteristic and the total number of lanes to be crossed. Likewise

for a vehicle turning left or right.

FHWA Control Systems Glossary **Definition Source:** IntersectionUnsignalizedControlled

Class Name: Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule: **Internal Representation Layout:**

Internal Layout Maximum Size: **Internal Layout Minimum Size:**

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONUNSIGNALIZEDCONTROLLED_CriticalGap_quantity

Descriptive Name Context: Traffic Simulation

The minimum time interval between vehicles in a major traffic stream that permits side-Definition:

street vehicle at a stop-controlled approach to enter the intersection under prevailing

traffic and roadway conditions, in seconds.

Definition Source: HCM A-2

> Class Name: IntersectionUnsignalizedControlled

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

INTERSECTIONUNSIGNALIZEDCONTROLLED_LeftTurnAcceptableGap_ **Descriptive Name:**

quantity

Descriptive Name Context: Traffic Simulation

> Definition: The acceptable gap for Left-Turns.

CORSIM Record 145 Definition Source:

Class Name: IntersectionUnsignalizedControlled

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float **Representation Class Term:**

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONUNSIGNALIZEDCONTROLLED_MovementCapacity_quan

titv

Descriptive Name Context: Traffic Simulation

Definition: The capacity of a specific movement at a stop-controlled intersection approach,

assuming that the movement has exclusive use of a separate lane, in passenger cars per

hour.

Definition Source: HCM A-3

Class Name: IntersectionUnsignalizedControlled

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Domorko: Lost Ci

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONUNSIGNALIZEDCONTROLLED_NewFSAcceptanceGap_q

uantity

Descriptive Name Context: Traffic Simulation

Definition: The acceptable gap to cross the far-side of a cross street.

Definition Source: CORSIM Record 143

Class Name: IntersectionUnsignalizedControlled

float

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONUNSIGNALIZEDCONTROLLED_NewNSAcceptanceGap_q

antity

Descriptive Name Context: Traffic Simulation

Definition: The acceptable gap to cross a near-side cross street.

Definition Source: CORSIM Record 142

> IntersectionUnsignalizedControlled Class Name:

Kevwords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: INTERSECTIONUNSIGNALIZEDCONTROLLED_RightTurnOnRedAccepta

bleGap_quantity

Descriptive Name Context: Traffic Simulation

Definition: The acceptable gap for Right Turn on red or at signs.

Definition Source: CORSIM Record 145

Class Name: **IntersectionUnsignalizedControlled**

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Lavout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LANE

Descriptive Name Context: Traffic Simulation

Definition:

Unidirectional roadway that carries a single-file stream of vehicles.

Definition Source:

Class Name: Lane

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LANE_AllowableMovements_code

Descriptive Name Context:

Traffic Simulation

Definition:

The movements that are allowed through the intersection from this lane.

Definition Source: CORSIM

Lane

Class Name:

Kevwords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

0=none, 1=left, 2=through, 3=right, 4=leftdiagonal, 5=rightdiagonal

Valid Value Rule:

Internal Representation Lavout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

The code is a concatenation of all applicable movements. E.g. 12 would indicate

left and through movements for this lane.

Descriptive Name:

LANE_AntireferenceEndLocation_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

Distance along this Lane's Segment from the reference end of the Segment to

the antireference end of the Lane.

Definition Source:

Class Name: Lane

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Descriptive Name:

LANE_Channelization_code

Descriptive Name Context:

Traffic Simulation

Definition:

Traffic restrictions for the lane.

Definition Source:

CORSIM

Class Name: Lane

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

Integer

Representation Class Term:

Value Domain:

ASN1 Data Type:

Valid Value Range:

0=unristricted, 1=left turn only, 2=buses only, 3=closed, 4=right turn only,

5=carpool only, 6=carpools and buses only, 7=right, diagonal and/or through, 8=left, diagonal and/or through, 9=restricted only by geometry and adjacent

lanes, 10=diagonal only, 11=through only.

Valid Value List: Valid Value Rule: Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LANE_DetectorLength_quantity

Descriptive Name Context: Traffic Simulation

Definition: The effective loop length in feet **Definition Source:** FHWA Control Systems Glossary

Class Name: Lane

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=Check-In, 1=Check_Out, 2=Merge, 3=Queue, 4=Demand, 5=Passage,

6=Induction, 7=Video Image.

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LANE_DetectorLocation_quantity

Descriptive Name Context: Traffic Simulation

Definition: The location of the detector from the upstream end of the lane in feet.

Definition Source: CORSIM
Class Name: Lane

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LANE_DetectorType_code

Descriptive Name Context: Traffic Simulation

Definition: A device for indicating the presence or passage of vehicles or pedestrians. This

general term is usually supplemented with a modifier, i.e., loop detector,

magnetic detector indicating type.

Definition Source: FHWA Control Systems Glossary

Class Name: Lan

Keywords:

Related Data Concept:

Relationship Type: **ASN1 Name: ASN1 Data Type:**

Representation Class Term: Value Domain:

Valid Value Range:

Valid Value List: 0=Check-In, 1=Check_Out, 2=Merge, 3=Queue, 4=Demand, 5=Passage,

6=Induction, 7=Video Image.

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LANE_IncidentCode_code

Descriptive Name Context: Traffic Simulation

> Definition: The incident code specifying the effect on the lane.

Definition Source: CORSIM Class Name: Lane

Keywords: **Related Data Concept:**

Relationship Type: **ASN1 Name:**

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=Normal Speed, 1=Traffic capacity reduced by the rubberneck factor at the

point of the incident.

Valid Value Rule:

Internal Representation Layout: **Internal Layout Maximum Size:**

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LANE_Length_quanity

Descriptive Name Context: Traffic Simulation

Definition: The travel distance from the upstream end to the downstream end of a Lane.

(Less than or equal to the length of the Segment to which the Lane belongs.)

Definition Source:

Class Name: Lane

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LANE_Type_code

58

Descriptive Name Context: Traffic Simulation

Definition:

Lane type. **CORSIM**

Definition Source:

Lane

Class Name: Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Integer

Representation Class Term:

Value Domain:

Valid Value Range:

0=surface street, 1=freeway mainline, 2=freeway on ramp, 3=freeway off ramp.

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

LANE_Width_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The width of the lane.

Definition Source:

Class Name: Lane

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

float

Descriptive Name:

LANEMARKING

Descriptive Name Context:

Traffic Simulation

Definition:

A marking on the lane to inform or direct drivers or pedestrians. Examples would be passing/no passing lines, directional arrows and pedestrian crossing

lines.

Definition Source:

Class Name:

LaneMarking

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK

Descriptive Name Context: Traffic Simulation

Definition: A one-way section of roadway between two nodes. It is intended that attributes

of the TSDD's Link will conform as much as possible to the TMDD's LINK data

elements.

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_AverageDelayTime_quantity

Descriptive Name Context: Traffic Simulation

> Definition: For each turn movement, the average time that vehicles were delayed on the

> > link. Calculated as the delay time for the turn movement divided by vehicle

trips for the turn movement.

Definition Source: FHWA Control Systems Glossary

> Class Name: Link

> > Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_AverageSpeed_quantity

Descriptive Name Context: Traffic Simulation

Definition: For each turn movement, the average speed of vehicles on a link that have

completely traversed the link. Calculated as vehicle miles divided by the total

Definition Source: FHWA Control Systems Glossary

Class Name: Link

Keywords: **Related Data Concept:**

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Remarks: Last Change 082799

Last Change 082799

Descriptive Name: LINK_Capacity_quantity

Descriptive Name Context: Traffic Simulation

Definition: See LINK_Capacity_quantity in the TMDD: "The Link maximum capacity in

vehicles per hour."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_Delay_quantity

Descriptive Name Context: Traffic Simulation

Definition: See LINK_Delay_quantity in the TMDD: "Calculated delay for vehicles

driving along a particular Link. this is additional time it will take above that recorded during free flow conditions to travel from one end of the link to the

other."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

tionship Type.

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

LINK_Density_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

See LINK_Density_quantity in the TMDD: "Vehicle concentration per

kilometer (in vehicles per kilometer) of the Link."

Definition Source:

Class Name: Lin

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

LINK_DesignSpeed_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

See LINK_DesignSpeed_quantity in the TMDD: "The Link design speed in

kilometers per hour."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

vallu value List.

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

LINK_Direction_code

Descriptive Name Context:

Traffic Simulation

Definition:

See LINK_Direction_code in the TMDD: "The direction of the Link traffic

flow, e.g E,W,N,S."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

Octetstring

ASN1 Data Type: Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: **Internal Layout Maximum Size:**

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

LINK_DistanceToStopLine_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The distance between the stop line and the curb line.

Definition Source:

CORSIM Record 80

Class Name: LINK

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks:

Last Change 082799

Descriptive Name:

LINK_FreeFlowSpeedPercentage_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

This percentage is correlated with the driver characteristics and is multiplied

with the Mean Free Flow Speed for the link to obtain a Free Flow Speed for

drivers of the specified characteristics for this link. CORSIM Record 147

Definition Source:

Class Name: LINK

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks:

Last Change 082799

Descriptive Name:

LINK_GroupID_number

Descriptive Name Context:

Traffic Simulation

Definition:

When a link is part of an aggregation such as an interchange or a corridor, this

number can be used to identify members of a group.

Definition Source:

CORSIM Record 90 and 95

Class Name: LINK Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_GroupSequence_number

Descriptive Name Context: Traffic Simulation

Definition: When a link is part of an aggregation such as an interchange or a corridor, this

number can be used to sequence members of a group.

Definition Source: CORSIM Record 90 and 95

Class Name: LINK

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_HeightRestriction_quanity

Descriptive Name Context: Traffic Simulation

Definition: See LINK_HeightRestriction_quantity in the TMDD: "Minimum vertical

clearance on a Link in centimeters."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK IdNumber number

Descriptive Name Context: Traffic Simulation

See LINK_IdNumber_number in the TMDD: "An unique numerical Definition:

designation for the Link."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

LINK_LaneAlignmentdownstream_number

Descriptive Name Context:

Traffic Simulation

Definition:

The lane number of the downstream through node that aligns with downstream

alignment lane of this link.

Definition Source:

CORSIM Link

Class Name: Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

LINK_LaneAlignmentupstream_number

Descriptive Name Context:

Traffic Simulation

Definition:

The lane number of the upstream node that aligns with the upstream alignment

lane of this link.

CORSIM

Definition Source:

Link

Class Name: Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_LeftDiagonalDownstream_number

Descriptive Name Context: Traffic Simulation

Definition: The node number of the downstream node that can receive left diagonal traffic.

Definition Source: CORSIM Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Vallu Value List.

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_LeftShoulderWidth_quantity

Descriptive Name Context: Traffic Simulation

Definition: See LINK_LeftShoulderWidth_quantity in the TMDD: "The width of the left

shoulder of the Link (in centimeters)."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Domork

Remarks: Last Change 082799

Descriptive Name: LINK_LeftTurnDownstream_number

Descriptive Name Context: Traffic Simulation

Definition: The node number of the downstream node that can receive left turning traffic.

Definition Source: CORSIM

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: Valid Value Rule: **Internal Representation Layout:**

Internal Layout Maximum Size: Internal Layout Minimum Size:

> Remarks: Last Change 082799

Descriptive Name: LINK LeftTurnPocketLanes number

Descriptive Name Context: Traffic Simulation

Definition: The number of lanes in the left turn pocket. See

LINK_LeftTurnPocketLaneNumber_quantity in TMDD.

Definition Source: CORSIM

> Class Name: Link

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_LeftTurnPocketLength_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The length of the left turn pocket (if any). See

> > LINK_LeftTurnPocketLength_quantity in TMDD.

Definition Source: CORSIM

> Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_Length_quantity

Descriptive Name Context:

Traffic Simulation Definition: See LINK_Length_quantity in the TMDD: "The length of the link in meters."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_LengthRestriction_quantity

Descriptive Name Context: Traffic Simulation

Definition: See LINK_LengthRestriction_quantity in the TMDD: "Maximum Vehicle

Length allowable on a Link in centimeters."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_LevelOfService_code

Descriptive Name Context: Traffic Simulation

> Definition: See LINK_LevelOfService_code in the TMDD: "A qualitative measure

describing operational conditions within a traffic stream and their perception by

motorists and/or passengers as defined in the Highway Capacity Manual."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Octetstring

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Lavout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_MedianType_code

Descriptive Name Context: Traffic Simulation **Definition:** See LINK_MedianType_code in the TMDD: "Type of median separation for

the Link."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: Octetstring

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_N

LINK_NumLanes_number

Descriptive Name Context: Traffic Simulation

Definition: See LINK_NumLanes_quantity in the TMDD: "The lowest number of lanes at

any point in the Link."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

LINK_NumLanesOpen_number

Descriptive Name Context:

Traffic Simulation

Definition:

See LINK_NumLanesOpen_quantity in the TMDD: "The lowest number at any

point of lanes currently open in the link."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_Occupancy_percent

Descriptive Name Context: Traffic Simulation

Definition: See LINK_Occupancy_percent in the TMDD: "Percent occupancy measured

for the Link."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_OpposingLeftTurnDownstream_number

Descriptive Name Context: Traffic Simulation

Definition: The node number of the upstream node, downstream, that opposes left turning

traffic.

Definition Source: CORSIM

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_PavementCondition_code

Descriptive Name Context: Traffic Simulation

Definition: The condition of the pavement.

Definition Source: CORSIM

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

0=dry, 1=wet.

Valid Value Rule: Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

LINK_PavementType_code

Descriptive Name Context:

xt: Traffic Simulation

Definition:

See LINK_PavementType_code in the TMDD: "The type of material from

which the pavement is constructed (e.g. concrete, asphalt)."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

ype: Character

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value Kange.

C=concrete, A=asphalt, G=grooved concrete, S=steel grid, O=other.

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

LINK_QueueDischargeHeadway_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The delay until discharge for each queued vehicle. A different headway for each

driver characteristic is assigned.

Definition Source:

CORSIM Record 149

Class Name: LINK

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

CORSIM

Descriptive Name:

LINK_RightDiagonalDownstream_number

Descriptive Name Context:

Traffic Simulation

Definition:

The node number of the downstream node that can receive right diagonal traffic.

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

LINK_RightShoulderWidth_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

See LINK_RightShoulderWidth_quantity in the TMDD: "The width of the

right shoulder for the Link in centimeters."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

LINK_RightTurnDownstream_number

Descriptive Name Context:

Traffic Simulation

CORSIM

Definition:

The node number of the downstream node that can receive right turning traffic.

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

LINK RightTurnPocketLanes number

Descriptive Name Context:

Traffic Simulation

Definitio

Definition: The number of lanes in the right turn pocket. See

LINK_RightTurnPocketLane_quantity in TMDD.

Definition Source: CORSIM Class Name: Link

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Lavout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_RightTurnPocketLength_quantity

Descriptive Name Context: Traffic Simulation

Definition: The length of the right turn pocket (if any). See

LINK_RightTurnPocketLength_quantity in TMDD.

Definition Source: CORSIM Class Name: Link

Keywords:

Related Data Concept:

Relationship Type: **ASN1 Name:**

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

> **Descriptive Name:** LINK_SightDistance_quantity

Descriptive Name Context: Traffic Simulation

Definition: The forward visibility of a driver at the stop line to see approaching vehicles.

Definition Source: CORSIM Record 80

Class Name: LINK

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799 Descriptive Name: LINK_Speed_quantity

Descriptive Name Context: Traffic Simulation

Definition: See LINK_Speed_quantity in the TMDD: "The average Link vehicular speed in

Kilometers per hour."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Lavout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_SpeedLimit_quantity

Descriptive Name Context: Traffic Simulation

Definition: See LINK_SpeedLimit_quantity in the TMDD: "Speed limit for automobiles in

Kilometers per hour."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Integer

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_StartUpLostTime_quantity

Descriptive Name Context: Traffic Simulation

Definition: The start-up lost time for the first vehicle in queue when the signal turns to

green. A different value for each driver characteristic is assigned.

Definition Source: CORSIM Record 149

> Class Name: LINK

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

LINK_Status_code

Descriptive Name Context:

Traffic Simulation

Definition:

See LINK_Status_code in the TMDD: "The Link Status."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Octetstring

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

LINK_ThroughDownstreamNode_number

Descriptive Name Context:

Traffic Simulation

Definition: **Definition Source:** The node number of the downstream node that can receive through traffic. **CORSIM**

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_TruckSpeedLimit_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

See LINK_TruckSpeedLimit_quantity in the TMDD: "Speed limit for trucks in

kilometers per hour."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_Type_code
Descriptive Name Context: Traffic Simulation

Definition: See LINK_Type_code in the TMDD: "The designation of the Link type.

(Fwy., Art., Psu., Sur., Ded., Rail, Bus, Air, Ferry, other modes)."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: Octetstring

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_UpstreamNode_number

Descriptive Name Context: Traffic Simulation

Definition: The number of the upstream node.

Definition Source: CORSIM Class Name: Link

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_Volume_quantity

Descriptive Name Context: Traffic Simulation

Definition: See LINK_Volume_quantity in the TMDD: "Projected or measured hourly

volume for the Link expressed in vehicles per hour."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: LINK_WeightRestriction_quantity

Descriptive Name Context: Traffic Simulation

Definition: See LINK_WeightRestriction_quantity in the TMDD: "Maximum Vehicle

Weight allowable on a Link in kilograms."

Definition Source:

Class Name: Link

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MANEUVER_Advantage_quantity

Descriptive Name Context: Traffic Simulation

Definition: Advantage threshold for discretionary maneuver.

Definition Source: CORSIM Record 70

Class Name: Maneuver

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MANEUVER_CollisionAvoidance_code

Descriptive Name Context: Traffic Simulation

Definition: Parameter for collision avoidance time period. Used in gap acceptance

algorithm.

Definition Source: CORSIM Record 70

Class Name: Maneuver

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range: 0-6 where 0 is the most time and 6 is the least time.

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MANEUVER_FollowerVehicleDecelerationRate_quantity

Descriptive Name Context: Traffic Simulation

Definition: Deceleration rate of follower vehicle.

Definition Source: CORSIM Record 81

Class Name: Maneuver

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MANEUVER_LeadVehicleDecelerationRate_quantity

Descriptive Name Context: Traffic Simulation

Definition: Deceleration rate of the lead vehicle.

Definition Source: CORSIM Record 81

Class Name: Maneuver

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value List:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MANEUVER_LeftTurnAcceptableGap_quantity

Descriptive Name Context:

Traffic Simulation

Maneuver

Definition:

The acceptable gap in oncoming traffic for a driver attempting a left turn.

Definition Source:

CORSIM Record 145

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MANEUVER_LeftTurnJumpProbability_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The probability that the first vehicle in queue will execute a left-turn when the

signal changes to green. CORSIM Record 140

Definition Source:

Class Name: Maneuver

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Lavout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MANEUVER LeftTurnLaggerTurnProbability quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The probability that a driver will execute a left-turn across opposing traffic

during a NO GO interval.

Definition Source:

CORSIM Record 141 Maneuver

Class Name: Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

79

Valid Value Range: Valid Value List: Valid Value Rule: **Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:**

> Remarks: Last Change 082799

MANEUVER_MaximumHeadway_quantity **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

> The headway above which no driver will attempt the maneuver. **Definition:**

Definition Source: CORSIM Record 81

Class Name: Maneuver

Keywords:

Related Data Concept:

Relationship Type: **ASN1 Name:**

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MANEUVER_MaximumLeftTurnSpeed_quantity

Descriptive Name Context: Traffic Simulation

The maximum speed for a left turn. Definition:

Definition Source: CORSIM Record 140

> Class Name: Maneuver

> > Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

MANEUVER_MaximumRightTurnSpeed_quantity **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

> Definition: The maximum speed for a right turn.

Definition Source: CORSIM Record 140

> Class Name: Maneuver

> > Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: **Internal Layout Maximum Size:**

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MANEUVER_MeanDistance_quantity

Descriptive Name Context: Traffic Simulation

Definition: Mean longitudinal distance over which drivers decide to perform on lane

change.

Definition Source: CORSIM Records 81 and 152

> Class Name: Maneuver

Keywords:

Related Data Concept:

Relationship Type: **ASN1 Name:**

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MANEUVER_MinimumDeceleration_quantity

Descriptive Name Context: Traffic Simulation

Definition: The minimum deceleration at the beginning of a discretionary maneuver. Used

in the computation of acceptable risk.

Definition Source: **CORSIM Record 81**

> Class Name: Maneuver

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MANEUVER_MinimumHeadway_quantity

Descriptive Name Context: Traffic Simulation

Definition:

Headway below which all drivers will attempt the maneuver.

Definition Source: CORSIM Record 81 Class Name: Maneuver

Keywords:

Related Data Concept:

Relationship Type: **ASN1 Name:**

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MANEUVER_Multiplier_quantity

Descriptive Name Context: Traffic Simulation

Multiplier for desire to complete discretionary maneuver. Definition:

Definition Source: CORSIM Record 70

Class Name: Maneuver

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MANEUVER_RightTurnOnRedAcceptableGap_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The acceptable fag in oncoming traffic for a driver attempting a right-turn on

> > red of at a sign.

Definition Source: CORSIM Record 145

> Class Name: Maneuver

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799 **Descriptive Name:** MANEUVER_SafetyFactor_quantity

Descriptive Name Context: Traffic Simulation

Definition: The degree of caution used by the driver.

Definition Source: CORSIM Record 81

Class Name: Maneuver

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MANEUVER_SpillbackProbability_quantity

Descriptive Name Context: Traffic Simulation

Definition: The probability that a vehicle about to discharge will join a spillback.

Definition Source: CORSIM Record 141

Class Name: Maneuver

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MANEUVER_TimeToComplete_quantity

Descriptive Name Context: Traffic Simulation

Definition: Time to complete the maneuver.

Definition Source: CORSIM Records 70 and 81

Class Name: Maneuver

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MANEUVER_Type_code

Descriptive Name Context:

Traffic Simulation

Definition:

The code identifying the type of maneuver to be performed.

Definition Source:

CORSIM Records 70, 81 and 140

Class Name: Maneuver

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=Lane change, 1=Left turn jump, 2=Right turn

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MANEUVER_UrgencyThreshold_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

Urgency of a driver to initiate a discretionary maneuver. Based on the driver's

aggressiveness, the remaining distance available and the complexity of the

maneuver.

Maneuver

Definition Source:

CORSIM Record 81

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MANEUVER_YieldingPercentage_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

Percentage of drivers desiring to yield the right-of-way to maneuvering vehicles.

Definition Source: CORSIM Record 70

Class Name: Maneuver

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MARKING

Descriptive Name Context:

Traffic Simulation

Definition:

Any mark on a lane, link, highway, etc. used to control drivers or pedestrians.

Definition Source:

Class Name:

Marking

Keywords: **Related Data Concept:**

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Lavout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MOE_Algorithm_Type_code

Descriptive Name Context:

Traffic Simulation

Definition:

The code of the MOE estimation algorithm to be applied. **CORSIM Record 66**

Definition Source:

Class Name: MOE

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MOE_Arterial_AverageControlDelay_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

Control delay includes initial deceleration delay, queue move-up time, stopped

delay, and final acceleration delay. Control

delay may also be referred to as signal delay.

Definition Source:

HCM 9-7

Class Name: Keywords:

Arterial

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: M

MOE_Arterial_AverageRunningTime_quantity

Descriptive Name Context:

: Traffic Simulation

Definition:

The average time vehicles are in motion while traversing a highway segment of

given length, excluding stopped-time delay, in seconds per vehicle or minutes

per vehicle.

Definition Source:

HCM A-1 Arterial

Class Name: A

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

manufaction Class Tarres

float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MOE_Arterial_AverageTravelSpeed_code

Descriptive Name Context:

t: Traffic Simulation

Definition:

The average speed of a traffic stream computed as the length of a highway

segment divided by the average travel time of vehicles traversing the segment,

in miles per hour.

HCM A-1

Definition Source:

Class Name: Arterial

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

valid value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_Arterial_LevelOfService_code

Descriptive Name Context: Traffic Simulation

A qualitative measure describing operational conditions within a traffic stream, Definition:

generally described in terms of such factors as speed and travel time, freedom to

maneuver, traffic interruptions, comfort and convenience, and safety.

Definition Source: HCM A-3

Class Name: Arterial Keywords:

Related Data Concept: Relationship Type:

ASN1 Name: ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE Freeway Capacity_quantity

Descriptive Name Context: Traffic Simulation

The maximum sustained (15-min) rate of flow at which traffic can pass a point Definition:

or uniform segment of freeway under prevailing roadway and traffic conditions. Capacity is defined for a single direction of flow, and is expressed in vehicle per

hour (vph).

HCM 3-3 **Definition Source:** Class Name: Freeway

Keywords: **Related Data Concept:**

Relationship Type: **ASN1 Name:**

ASN1 Data Type:

Representation Class Term: Value Domain:

Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

MOE_Freeway_Density_quantity **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

The number of vehicles occupying a given length of lane or roadway averaged Definition:

over time, usually expressed as vehicles per mile or vehicles per mile per lane.

Definition Source: HCM A-2 Class Name: Freeway

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

MOE_Freeway_LevelOfService_code **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

> Definition: A qualitative measure describing operational conditions within a traffic stream,

generally described in terms of such factors as speed and travel time, freedom to

maneuver, traffic interruptions, comfort and convenience, and safety.

Definition Source: HCM A-3

Class Name: Freeway

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range: A - F

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_Freeway_MaximumServiceFlowRate_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The highest 15-min rate of flow that can be accommodated on a highway

> > facility under ideal conditions while maintaining the operating characteristics for a stated level of service, expressed as passenger cars per hour per lane.

Definition Source: HCM A-3

> Class Name: Freeway

Kevwords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Descriptive Name: MOE_Freeway_Speed_quantity

Descriptive Name Context: Traffic Simulation

> Definition: A rate of motion, in distance per unit of time.

> > S = d / t (mph or fps).

Definition Source: Traffic Engineering, McShane, et al

Freeway Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: floa

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_Freeway_Volume_quantity

Descriptive Name Context: Traffic Simulation

Definition: The number of persons or vehicles passing a point on a lane, roadway, or other

trafficway during some time interval, often taken to be 1 hr, expressed in

vehicles.

Definition Source: HCM A-5

Class Name: Freeway

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_FreewayRamp_DivergeVolume_quantity

Descriptive Name Context: Traffic Simulation

Definition: The total volume in the traffic stream which will separate. For the case of a one-

lane, right-side on-ramp, the diverge volume is equal to the lane 1 volume

immediately upstream of the subject ramp.

Definition Source: HCM 5-3 Class Name: FreewayRamp

Class Name: Freewa Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Volum Domain

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MOE_FreewayRamp_FreewayVolume quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The total freeway volume. Generally considered at the point where it is at the

maximum level, i.e., upstream of an off-ramp and downstream of an on-ramp. HCM 5-3

Definition Source:

Class Name: FreewayRamp

Keywords: **Related Data Concept:**

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MOE_FreewayRamp_LevelOfService_code

Descriptive Name Context:

Traffic Simulation

Definition:

A qualitative measure describing operational conditions within a traffic stream, generally described in terms of such factors as speed and travel time, freedom to

maneuver, traffic interruptions, comfort and convenience, and safety.

Definition Source:

Class Name:

FreewayRamp

HCM A-3

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MOE_FreewayRamp_MergeVolume_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The total volume in the traffic streams which will join. For the case of a one-

lane, right-side on-ramp, the merge volume is the sum of the lane 1 volume plus

the ramp volume.

Definition Source:

Class Name: FreewayRamp

HCM 5-3

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: Valid Value Rule: **Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:**

Remarks: Last Change 082799

Descriptive Name: MOE_FreewayRamp_Volume_quantity

Descriptive Name Context: Traffic Simulation

Definition: The number of persons or vehicles passing a point on a lane, roadway, or other

trafficway during some time interval, often taken to be 1 hr, expressed in

vehicles.

Definition Source: HCM A-5 FreewayRamp Class Name:

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_FreewayWeavingArea_LevelOfService_code

Descriptive Name Context: Traffic Simulation

> **Definition:** A qualitative measure describing operational conditions within a traffic stream,

> > generally described in terms of such factors as speed and travel time, freedom to

maneuver, traffic interruptions, comfort and convenience, and safety.

Definition Source: HCM A-3

> Class Name: FreewayWeavingArea

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: $MOE_Free way Weaving Area_Minimum Average Non Weaving Speed_quantity$

Descriptive Name Context: Traffic Simulation

> **Definition:** Average minimum running speed for all non-weaving vehicles occupying a

given section of highway over some time.

Definition Source: HCM implied

> Class Name: FreewayWeavingArea

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

MOE FreewayWeavingArea MinimumAverageWeavingSpeed_quantity **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

> Definition: Average minimum running speed for all weaving vehicles occupying a given

> > section of highway over some time.

HCM implied **Definition Source:**

> Class Name: Freeway Weaving Area

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_FreewayWeavingArea_Volume_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The number of persons or vehicles passing a point on a lane, roadway, or other

> > trafficway during some time interval, often taken to be 1 hr, expressed in

vehicles.

Definition Source: HCM A-5

FreewayWeavingArea Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799 **Descriptive Name:** MOE_IntersectionSignalized_ApproachCapacity_quantity

Descriptive Name Context: Traffic Simulation

Definition: The maximum rate of flow (for the subject approach) which may pass through

the intersection under prevailing traffic, roadway and signalization conditions.

Definition Source: HCM 9-3

> Class Name: IntersectionSignalized

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

> **ASN1 Data Type:** float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

> Remarks: Last Change 082799

Descriptive Name: MOE_IntersectionSignalized_ApproachVolume_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The number vehicles which may pass through the intersection under prevailing

traffic, roadway and signalization conditions during some time interval, often

taken to be 1 hr, expressed in vehicles.

Definition Source: HCM implied

> Class Name: IntersectionSignalized

Keywords:

Related Data Concept:

Relationship Type: **ASN1 Name:**

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_IntersectionSignalized_CriticalVCRatio_quantity

Descriptive Name Context: Traffic Simulation

Definition: A v/c ratio for the intersection as a whole, considering only the lane groups or

approaches that have the highest flow ration, v/s, for a given signal phase.

Definition Source: HCM 9-4

> Class Name: IntersectionSignalized

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

float

ASN1 Data Type: Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: Valid Value Rule: **Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:**

Remarks: Last Change 082799

Descriptive Name: MOE_IntersectionSignalized_FlowRatio_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The ratio of the actual flow rate for the approach or lane group to the saturation

> > flow rate.

Definition Source: HCM 9-3

> Class Name: IntersectionSignalized

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE IntersectionSignalized LevelOfService_code

Descriptive Name Context: Traffic Simulation

> Definition: A qualitative measure describing operational conditions within a traffic stream,

> > generally described in terms of such factors as speed and travel time, freedom to

maneuver, traffic interruptions, comfort and convenience, and safety.

Definition Source: HCM A-3

> Class Name: IntersectionSignalized

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_IntersectionSignalized_SaturationFlowRate_quantity

Descriptive Name Context: Traffic Simulation

Definition: The maximum rate of flow that can pass through a given intersection approach

> or lane group under prevailing traffic and roadway conditions, assuming that the approach or lane group had 100 percent of real time available as effective green

time.

Definition Source: HCM 9-3 Class Name: In

IntersectionSignalized

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MOE_IntersectionUnsignalizedControlled_AverageDelay_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The total additional travel time experienced by drivers, passengers, or

pedestrians as a result of control measures and interaction with other users of the facility divided by the volume departing from the corresponding cross section of

the facility. HCM A-1

Definition Source:

Class Name:

IntersectionUnsignalizedControlled

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Descriptive Name: MOE_IntersectionUnsignalizedControlled_ConflictingVolume_quantity

Descriptive Name Context: Traffic Simulation

Definition: The volume of traffic that conflicts with a specific movement at an unsignalized

intersection.

Definition Source: HCM A-2

Class Name: IntersectionUnsignalizedControlled

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_IntersectionUnsignalizedControlled_QueueLength_quantity

Descriptive Name Context: Traffic Simulation

Definition: (1) Number of vehicles stopped in a lane behind the stopline at a traffic signal.

> (2) Number of vehicles that are stopped or moving in a line where the movement of each vehicle is constrained by that of the lead vehicle.

FHWA Control Systems Glossary **Definition Source:** Class Name: IntersectionUnsignalizedControlled

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Lavout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE IntersectionUnsignalizedControlled Volume quantity

Descriptive Name Context: Traffic Simulation

Definition: The number of persons or vehicles passing a point on a lane, roadway, or other

trafficway during some time interval, often taken to be 1 hr, expressed in

vehicles.

Definition Source: HCM A-5

> Class Name: IntersectionUnsignalizedControlled

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_MultilaneHighway_AverageTravelSpeed_quantity

Descriptive Name Context:

Traffic Simulation

Definition: The average speed of a traffic stream computed as the length of a highway

segment divided by the average travel time of vehicles traversing the segment,

in miles per hour.

Definition Source: HCM A-1

> Class Name: MultilaneHighway

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule: **Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:**

Remarks:

Last Change 082799

Descriptive Name:

MOE MultilaneHighway Density quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The number of vehicles occupying a given length of lane or roadway averaged

over time, usually expressed as vehicles per mile or vehicles per mile per lane.

Definition Source: HCM A-2

Class Name:

MultilaneHighway

Kevwords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

float

Descriptive Name:

MOE MultilaneHighway FreeFlowSpeed quantity

Descriptive Name Context:

Traffic Simulation

Definition:

(1) The theoretical speed of traffic when density is zero, that is, when no vehicles are present; (2) the average speed of vehicles over an arterial segment

not close to signalized intersections under conditions of low volume.

Definition Source:

HCM A-2 Class Name:

MultilaneHighway

float

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks:

Last Change 082799

Descriptive Name:

MOE_MultilaneHighway_LevelOfService_code

Descriptive Name Context:

Traffic Simulation

Definition:

A qualitative measure describing operational conditions within a traffic stream, generally described in terms of such factors as speed and travel time, freedom to

maneuver, traffic interruptions, comfort and convenience, and safety.

Definition Source: HCM A-3

Class Name: Keywords:

MultilaneHighway

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_MultilaneHighway_ServiceFlowRate_quantity

Descriptive Name Context: Traffic Simulation

Definition: The maximum hourly rate at which persons or vehicles can be reasonably

expected to traverse a point of a lane or roadway during a given time period (usually 15 min) under prevailing roadway, traffic, and control conditions while maintaining a designated level of service, expressed as vehicles per hour or

vehicles per hour per lane.

Definition Source: HCM A-4

> Class Name: MultilaneHighway

> > float

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

MOE_MultilaneHighway_Volume_quantity **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

Definition: The number of persons or vehicles passing a point on a lane, roadway, or other

trafficway during some time interval, often taken to be 1 hr, expressed in

vehicles.

Definition Source: HCM A-5

> Class Name: MultilaneHighway

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MOE_Pedestrian_Density_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The average number of pedestrians per unit of area within a walkway or queuing

area, expressed as pedestrians per square foot. HCM 13-3

Definition Source:

Class Name: Pedestrian

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MOE_Pedestrian_FlowRate_quantity

Descriptive Name Context:

t: Traffic Simulation

Definition: The number

The number of pedestrians passing a point per unit time, expressed as pedestrians per 15 minutes or pedestrians per minute; "point" refers to a

perpendicular line of sight across the width of a walkway.

Definition Source:

Class Name:

HCM 13-3 Pedestrian

float

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

ASINI Data Type.

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: L

Last Change 082799

Descriptive Name:

MOE_Pedestrian_LevelOfService_code

Descriptive Name Context:

Traffic Simulation

Definition:

Convenience factors such as the ability to select walking speeds, bypass slower pedestrians, avoid conflicts with others and degrees of crowding in queuing areas, such as sidewalk corners, transit platforms, and other waiting areas.

Definition Source:

HCM 13-3 Pedestrian

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:
Representation Class Term:
Value Domain:
Valid Value Range:
Valid Value List:
Valid Value Rule:
Internal Representation Layout:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_Pedestrian_Space_quantity

Descriptive Name Context: Traffic Simulation

Definition: The average area provided for each pedestrian in a walkway or queuing area,

expressed in terms of square feet per pedestrian; this is the inverse of density,

but is a more practical unit for the analysis of pedestrian facilities.

Definition Source: HCM 13-3
Class Name: Pedestrian

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_Pedestrian_Speed_quantity

Descriptive Name Context: Traffic Simulation

Definition: The average pedestrian walking speed, generally expressed in units of feet per

second.

Definition Source: HCM 13-3
Class Name: Pedestrian

Keywords:

Related Data Concept:

Relationship Type: ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_Pedestrian_UnitWidthFlow_quantity

Descriptive Name Context: Traffic Simulation

Definition: The average flow of pedestrians per unit of effective walkway width, expressed

as pedestrians per minute per foot.

Definition Source: HCM 13-3 Class Name: Pedestrian

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_Road_AverageTravelTime_quantity

Descriptive Name Context: Traffic Simulation

Definition: The average time spent by vehicles traversing a road segment of given length, including

all stopped-time delay, in seconds per vehicle or minutes per vehicle.

Definition Source: HCM A-1 Class Name: Road

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_Road_LevelOfService_code

Descriptive Name Context: Traffic Simulation

Definition: A qualitative measure describing operational conditions within a traffic stream,

generally described in terms of such factors as speed and travel time, freedom to

maneuver, traffic interruptions, comfort and convenience, and safety.

Definition Source: HCM 13-3

Class Name: Road

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_Road_Volume_quantity

Descriptive Name Context: Traffic Simulation

Definition: The number of persons or vehicles passing a point on a lane, roadway, or other

trafficway during some time interval, often taken to be 1 hr, expressed in

vehicles.

Definition Source: HCM Class Name: Road Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

MOE_Transit_LoadFactor_quantity **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

> Definition: The ratio of total passengers carried to the number of seats during a specified

> > time period.

Definition Source: HCM 12-3 Class Name: Transit

Keywords:

Related Data Concept:

Relationship Type: **ASN1 Name:**

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_Transit_PersonCapacity_quantity

Descriptive Name Context: Traffic Simulation

Definition:

The maximum number of persons that can be carried past a given location during a given time period under specified operating conditions without

unreasonable delay, hazard, or restriction. Usually measured in terms of persons per hour.

Definition Source: HCM 12-3 Class Name: Transit

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type:

float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MOE_Transit_PersonLevelOfService_code

Descriptive Name Context:

Traffic Simulation

HCM A-3

Definition:

The quality of service offered the passenger within a transit vehicle, as

determined by the available space per passenger.

Definition Source:

Class Name: Transit

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

HCM 12-3

Descriptive Name:

MOE_Transit_ProductiveCapacity_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

A measure of efficiency or performance. The product of passenger capacity

along a transit line and speed.

Definition Source:

Transit

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MOE_TwoLaneHighway_AverageTravelSpeed_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The average speed of a traffic stream computed as the length of a highway

103

segment divided by the average travel time of vehicles traversing the segment in

both directions, in miles per hour.

HCM 8-2 **Definition Source:**

> Class Name: TwoLaneHighway

Kevwords:

Related Data Concept:

Relationship Type: **ASN1 Name:**

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_TwoLaneHighway_Capacity_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The maximum rate of flow at which persons or vehicles can be reasonably

expected to traverse a point or uniform segment of a lane or roadway during a specified time period under prevailing roadway, traffic, and control conditions,

usually expressed as vehicles per hour or persons per hour.

Definition Source: HCM A-1

> Class Name: TwoLaneHighway

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE_TwoLaneHighway_CapacityUtilization_quantity

Descriptive Name Context: Traffic Simulation

Definition:

The ratio (v/c ratio) of the demand flow rate to the capacity of the facility.

Definition Source: HCM 8-2

Class Name: TwoLaneHighway

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size: Internal Layout Minimum Size:

> Remarks: Last Change 082799

Descriptive Name: MOE TwoLaneHighway DemandFlowRate quantity

Descriptive Name Context: Traffic Simulation

> Definition: The traffic volume expected to desire service past a point or segment of the

> > highway system at some future time, or the traffic currently arriving or desiring

service past such a point, usually expressed as vehicles per hour.

Definition Source: HCM A-2

> Class Name: TwoLaneHighway

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOE TwoLaneHighway PercentTimeDelay quantity

Descriptive Name Context: Traffic Simulation

> Definition: The average percent of time that all vehicles are delayed while traveling in

> > platoons due to the inability to pass.

Definition Source: HCM 8-2

> Class Name: TwoLaneHighway

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MOTORHOME

Descriptive Name Context: Traffic Simulation

> Definition: A recreational motor vehicle which usually contains facilities for sleeping and

eating.

Definition Source:

Class Name: MotorHome

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

MULTILANEHIGHWAY

Descriptive Name Context:

Traffic Simulation

Definition:

A highway with at least two lanes for the exclusive use of traffic in each direction, with no or partial control of access, that may have periodic

interruptions to flow at signalized intersections.

Definition Source:

HCM A-3

Class Name:

MultilaneHighway

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Lavout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks:

Last Change 082799

Descriptive Name:

MULTILANEHIGHWAYDIVIDED

Descriptive Name Context:

Traffic Simulation

Definition:

A subclass of MultilaneHighway in which the opposing lanes are separated by a

median or two-way left turn lane.

Definition Source:

Class Name:

HCM Implied MultilaneHighwayDivided

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks:

Last Change 082799

Descriptive Name:

MULTILANEHIGHWAYUNDIVIDED

Descriptive Name Context: Traffic Simulation

Definition: A subclass of MultilaneHighway in which the opposing lanes are not separated

by a median or two-way left turn lane.

Definition Source: HCM Implied

Class Name: MultilaneHighwayUndivided

Keywords:

Related Data Concept: Relationship Type: ASN1 Name: ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: MULTIUNITTRUCK
Descriptive Name Context: Traffic Simulation

Definition: A truck whose cab (tractor) is a separate entity from its load bed (trailer).

Definition Source:

Class Name: Network

Keywords:

Related Data Concept: Relationship Type: ASN1 Name: ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: NETWORK

Descriptive Name Context: Traffic Simulation

Definition: A network is the aggregation of the important permanent components of a

traffic model. Vehicles are not included because, for purposes of the model,

they are transitory.

Definition Source:

Class Name: Network

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size: Remarks: Last Change 082799

Descriptive Name: NETWORK_City_text **Descriptive Name Context:** Traffic Simulation

The name of the city where a Network is located. Definition:

Definition Source:

Class Name: Network

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: string

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Lavout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: NETWORK_County text

Descriptive Name Context: Traffic Simulation

The name of the county where a Network is located. Definition:

Definition Source:

Class Name: Network

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: string

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: NETWORK_Description_text

Descriptive Name Context: Traffic Simulation

Definition: A textual description of a Network. This attribute can contain whatever notes

about the model the modeler chooses to make.

Definition Source:

Network Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: string

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: **Internal Layout Maximum Size:**

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

NETWORK_Name_text

Descriptive Name Context:

Traffic Simulation

Definition:

A label for a traffic network. (Are there any constraints about uniqueness of the

name? How could such a constraint be enforced?)

Definition Source:

Class Name: Network

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: string

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

NETWORK_State_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

A 'snapshot' of a network.

Definition Source:

Network Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: binary

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: NODE

Descriptive Name Context: Traffic Simulation

Definition: A point where two or more links meet. A node specifies connectivity in the

network but has no dimension or shape. It is intended that the TSDD's Node

will conform as much as possible to the TMDD's Node.

Definition Source:

Class Name: Node

Keywords:

Related Data Concept: Relationship Type:

109

ASN1 Name: **ASN1 Data Type:**

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

NODE IdNumber number

Descriptive Name Context:

Traffic Simulation

Definition:

See NODE_IdNumber_number in the TMDD: "An unique identification

number for Node."

Definition Source:

Class Name: Node

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

Integer

ASN1 Data Type: Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

NODE Latitude location

Descriptive Name Context:

Traffic Simulation

Definition:

See NODE_Latitude_location in the TMDD: "Latitude of Node."

Definition Source:

Class Name: Node

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size: Remarks:

Last Change 082799

Descriptive Name:

NODE_Longitude_location

Descriptive Name Context:

Traffic Simulation

Definition:

See NODE_Longitude_location in the TMDD: "Longitude of Node in

microdegrees."

Definition Source:

Class Name: Node

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: NODE_NumLinks_quantity

Descriptive Name Context: Traffic Simulation

Definition: See NODE_NumLinks_quantity in the TMDD: "Number of Links at this

Node."

Definition Source:

Class Name: Node

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: NODE_Status_code

Descriptive Name Context: Traffic Simulation

Definition: See NODE_Status_code in the TMDD: "NODE traffic status or condition."

Definition Source:

Class Name: Node

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Octetstring

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: NODE_Type_code
Descriptive Name Context: Traffic Simulation

Definition: The code to identify the type of node.

Definition Source: CORSIM Record 177

Class Name: Node

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=Regular, 1=Entry, 2=Exit, 3=Entry/Exit, 4=Source, 5=Sink, 6=Source/Sink

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: NODE_XCoordinate_quantity

Descriptive Name Context: Traffic Simulation

Definition: The X Coordinate of the node.

Definition Source: CORSIM Record 195

Class Name: Node

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: NODE_YCoordinate_quantity

float

Descriptive Name Context: Traffic Simulation

Definition: The Y Coordinate of the node.

Definition Source: CORSIM Record 195

Class Name: Node

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

ASIN I Data Type.

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: NORMALLANE

Descriptive Name Context: Traffic Simulation

Definition: Definition Source:

This is an ordinary lane for carrying traffic in one direction

Class Name:

Class Name: NormalLane Keywords:

Related Data Concept:

Relationship Type: ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule: Internal Representation Layout:

Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: ODPAIR_DestinationNode_number

Descriptive Name Context: Traffic Simulation

Definition: The destination node number of the ODPair.

Definition Source: CORSIM Record 74

Class Name: ODPair

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: ODPAIR_ID_number
Descriptive Name Context: Traffic Simulation

Definition: A unique number identifying an Origin-Destination pair.

Definition Source: CORSIM Record 95

Class Name: ODPair

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

ASN'I Data Type: Integ

Representation Class Term: Value Domain:

Value Domain: Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Lavout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: ODPAIR OriginNode number

Descriptive Name Context: Traffic Simulation

Definition: The orgin node number.

Definition Source: CORSIM Record 74

> Class Name: **ODPair**

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: ODPAIR_Percentage_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The percentage of vehicles entering through the origin node.

Definition Source: CORSIM Records 74 and 176

Class Name: **ODPair**

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: ODPAIR_Volume_quantity

Descriptive Name Context: Traffic Simulation

Definition: Volume traveling from the origin node to the destination node.

Definition Source: CORSIM Record 176

Class Name: ODPair

Kevwords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PARKINGZONE_ExpectedNumManeuvers_number

Descriptive Name Context: Traffic Simulation

> Definition: The expected number of parking maneuvers for a specified time period.

Definition Source: CORSIM Record 56

Class Name: ParkingZone

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

> ASN1 Data Type: integer

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

PARKINGZONE_Length_quantity Descriptive Name:

Descriptive Name Context: Traffic Simulation

> The length of the parking zone Definition:

Definition Source: CORSIM Record 56

Class Name: ParkingZone

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule: **Internal Representation Layout:**

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

PARKINGZONE_Location_quantity **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

> The distance from the downstream stop line to the front of the parking zone. Definition:

Definition Source: CORSIM Record 56

ParkingZone Class Name:

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

float

Descriptive Name:

PARKINGZONE_MeanDurationOfManeuvers_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

Mean duration of parking maneuver.

Definition Source:

CORSIM Record 56

Class Name:

ParkingZone

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks:

Last Change 082799

Descriptive Name:

PASSENGER

Descriptive Name Context:

Traffic Simulation

Definition:

Any rider in a vehicle that is not the driver.

Definition Source:

Class Name:

Keywords:

Passenger

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

PASSENGERCAR

Descriptive Name Context:

Traffic Simulation

Definition:

A personal vehicle generally used to transport passengers.

Definition Source:

Class Name: PassengerCar

116

Keywords: Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PAVEMENTMATERIAL

Descriptive Name Context: Traffic Simulation

Definition: The type of pavement used for some part of a roadway.

Definition Source:

Class Name: PavementMaterial

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PAVEMENTMATERIAL_Condition_code

Descriptive Name Context: Traffic Simulation

Definition: The condition of the pavement.

Definition Source: CORSIM Record 69

Class Name: PavementMaterial

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name: Integer

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=Dry, 1=Wet

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PAVEMENTMATERIAL_FrictionCoefficient_quantity

Descriptive Name Context: Traffic Simulation

Definition: The friction coefficient is used in the computation of maximum speed on a

curve.

Definition Source: CORSIM Record 69 Class Name: **PavementMaterial**

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PAVEMENTMATERIAL_LagToAccelerate_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The time delay to accelerate.

Definition Source: CORSIM Record 69 Class Name: **PavementMaterial**

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PAVEMENTMATERIAL_LagToDecelerate_quantity

Descriptive Name Context: Traffic Simulation

Definition: The time delay to decelerate.

Definition Source: CORSIM Record 69 Class Name: PavementMaterial

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PAVEMENTMATERIAL_Type_code

Descriptive Name Context: Traffic Simulation

Definition: The code identifying the pavement type.

Definition Source: CORSIM Record 69
Class Name: PavementMaterial

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=Concrete, 1=Asphalt, 3=Other

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PEDESTRIAN

Descriptive Name Context: Traffic Simulation

Definition: An individual traveling on foot.

Definition Source: HCM A-3

Class Name: Pedestrian

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name: ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PEDESTRIAN_ArrivalHeadway_quantity

Descriptive Name Context: Traffic Simulation

Definition: The arrival headway for pedestirans actuating the push button.

Definition Source: CORSIM Record 48

Class Name: Pedistrian

Keywords:

Related Data Concept:

Relationship Type: ASN1 Name:

ASN1 Data Type: float

ASNI Data Type: 1103

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

PEDESTRIAN_ConstantDemandLength_quantity Descriptive Name:

Descriptive Name Context: Traffic Simulation

> The length of the pedestrian constant demand period. **Definition:**

Definition Source: CORSIM 48 Class Name: Pedestrian

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PEDESTRIAN_ConstantDemandStart_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The start time from the beginning of the simulation when pedestrian demand is

> > continuous.

Definition Source: CORSIM 48 Pedestrian

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

PEDESTRIAN_DeterministicStart_quantity Descriptive Name:

Traffic Simulation **Descriptive Name Context:**

Definition: Elapsed time from start of simulation to beginning of deterministic arrivals.

Definition Source: CORSIM Record 48

Class Name: Pedestrian

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

PEDESTRIAN_Intensity_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The number of pedestrians per hour.

Definition Source:

CORSIM Record 48

Class Name:

Pedestrian Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

PHASE

Descriptive Name Context:

Traffic Simulation

Definition:

The part of the signal cycle allocated to any combination of traffic movements receiving

the right-of-way simultaneously during one or more intervals. HCM A-4

Definition Source:

Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

PHASE_ConditionalService_code

Descriptive Name Context:

Traffic Simulation

Definition:

This code specifies whether the phase can service a left turn twice in the same

cycle.

Phase

Definition Source:

CORSIM Record 47

Class Name:

Kevwords:

Related Data Concept:

Relationship Type: ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=Can, 1=Cannot

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_DualEntry_code

Descriptive Name Context: Traffic Simulation

Definition: This code specifies whether dual entry is allowed.

Definition Source: CORSIM Record 47

Class Name: Phase

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=Allowed, 1=Prohibited

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_ForceOff_quantity

Descriptive Name Context: Traffic Simulation

Definition: The point in the phase were the controller must terminate the phase to service

another phase.

Definition Source: Actuated Controllers in TRAF, 8

Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_GapReduction_code

Descriptive Name Context: Traffic Simulation

Definition: The code identifying the method for reducing the gap between vehicles from the

orginal value to a lesser value over a specified amount of time.

Definition Source: CORSIM Record 47

Class Name: Phase

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

0=Reduce by/reduce every, 1=Reduce by every second, 2=Time to reduce to

minimum gap

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

PHASE_GreenEnd_quantity Descriptive Name:

Descriptive Name Context: Traffic Simulation

> Definition: The end time for the green part of the phase.

Definition Source: CORSIM Class Name: Phase

Kevwords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

> **Descriptive Name:** PHASE_GreenStart_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The start time for the green part of the phase.

Definition Source: CORSIM Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type: **ASN1 Name:**

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799 Descriptive Name: PHASE_Lag_code
Descriptive Name Context: Traffic Simulation

Definition: This code designates which phase of a phase pair displays green first.

Definition Source: CORSIM Record 47

Class Name: Phase

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=Phase lags the other, 1=Phase leads the other.

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_LagPhaseHold_code

Descriptive Name Context: Traffic Simulation

Definition: This code designates whether a hold can be placed on a phase to prevent the

phase from terminating before the force-off point.

Definition Source: CORSIM Record 47

Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=Cannot, 1=Can

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_MaximumGap_quantity

Descriptive Name Context: Traffic Simulation

Definition: The gap at the baginning of the reduction period.

Definition Source: CORSIM Record 47

Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_MaximumGreenLength_quantity

Descriptive Name Context: Traffic Simulation

Definition: The maximum time that a phase is allowed to display green after receipt of a

vehicle call on a conflicting phase.

Definition Source: Actuated Controllers in TRAF, 5

Class Name: Phase

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_MaximumInitialInterval_quantity

Descriptive Name Context: Traffic Simulation

Definition: The maximum green time allowed for the variable initial interval timing.

Definition Source: CORSIM Record 47

Class Name: Phase

Kevwords:

Relationship Type:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_MaximumVehicleRecall_code

Descriptive Name Context: Traffic Simulation

Definition: This code specifies whether the controller will service maximum green when

there is no demand.

Definition Source: CORSIM Record 47

Class Name: Phase

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: Valid Value Rule:

0=Serviced, 1=Not serviced

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

PHASE_MinimumConditionalServiceTime_quantity

Descriptive Name Context:

Traffic Simulation

CORSIM Record 47

Definition:

The minimum time that must be available to provide the conditional service

phase when a call is issued for the phase.

Definition Source:

Phase Class Name:

float

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule: **Internal Representation Layout:**

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

PHASE MinimumGap_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The minimum acceptable vehicle gap.

Definition Source: CORSIM Record 47

Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: quantity

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks:

Last Change 082799

Descriptive Name:

PHASE MinimumGreenLength_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The shortest green time of the phase. If a time setting control is designated as minimum green, the green time shall not be less than that setting. For a fullyactuated controller, the first timed portion of the green interval. It is set

considering the number of waiting vehicles between the approach detector and

stopline.

Definition Source: FHWA Control Systems Glossary

> Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_MinimumInitialInterval_quantity

Descriptive Name Context: Traffic Simulation

> Definition: Once an actuated phase is initiated, it must be in effect for some minimum

> > initial interval regardless of competing CALLs for other phases. At the end of the minimum initial interval, the phase may be terminated if no detector actuations are registered for the current phase and a CALL is received for a subsequent phase. Otherwise, the current phase is extended until its Force-off

Point is reached.

Definition Source: FHWA Control Systems Glossary

> Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_MinimumVehicleRecall_code

Descriptive Name Context: Traffic Simulation

Definition: This code specifies whether the minimum initial interval is recalled when there

is no demand.

Definition Source: CORSIM Record 47

> Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=Recalled, 1=Not recalled Valid Value Rule: Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_Number_number

Descriptive Name Context: Traffic Simulation

Definition: The phase number

Definition Source: CORSIM

Class Name: Phase Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_Overlap_code

Descriptive Name Context: Traffic Simulation

Definition: This code designates whether this phase is one of phase pair defining an

overlap.

Definition Source: CORSIM Record 47

Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=is one of a phase pair defining overlap, 1=is not one of a phase pair defining

overlap.

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_PermissiveEndTime_quantity

Descriptive Name Context: Traffic Simulation

Definition: During a permissive period, calls may be answered for phases other than the

sync phases. Each permissive period has a Begin and End time.

Definition Source: FHWA Control Systems Glossary

Class Name: Phas

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

float

Descriptive Name: PHASE_PermissiveStartTime_quantity

Descriptive Name Context: Traffic Simulation

During a permissive period, calls may be answered for phases other than the Definition:

sync phases. Each permissive period has a Begin and End time.

Definition Source: FHWA Control Systems Glossary

Class Name: Phase

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_RedEnd_quantity

Descriptive Name Context: Traffic Simulation

Definition:

The end time for the red part of the phase. **Definition Source:** CORSIM

Class Name: Phase

Kevwords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_RedLock_code

Descriptive Name Context: Traffic Simulation

Definition: When red lock is active the controller begins accumulating vehicle actuation for

the phase to be used in the calculation of variable initial timing during only the

red portion of the phase.

Definition Source: CORSIM Record 47

Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=Set, 1=Not set

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_RedRevertTime_quantity

Descriptive Name Context: Traffic Simulation

Definition: The minimum time that red must be displayed after a yellow.

Definition Source: CORSIM Record 47

Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_RedStart_quantity

Descriptive Name Context: Traffic Simulation

Definition: The start time of the red part of the phase.

Definition Source: CORSIM

Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

valid value Rule.

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_ReductionTime_quantity

Descriptive Name Context: Traffic Simulation

Definition: The time over which the initial extension (gap) time will be reduced to a lesser

value.

Definition Source: Actuated Controllers in TRAF, 6

Class Name: Phase

Keywords:

Related Data Concept:
Relationship Type:
ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_RestInRed_code

Descriptive Name Context: Traffic Simulation

Definition: This code designates if the controller is allowed to rest in red when there is no

demand.

Definition Source: CORSIM Record 47

Class Name: Phaxe

Kevwords:

Related Data Concept: Relationship Type: ASN1 Name:

ASINI INAIIIE.

ASN1 Data Type: Integer

Representation Class Term:

Value Domain: Valid Value Range:

allu value Kalige.

Valid Value List: 0=Allowed, 1=Not Allowed

Valid Value Rule: Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_RightTurnOnRed_code

Descriptive Name Context: Traffic Simulation

Definition: Whether a vehicle desiring to turn right at an intersection may do so or not when

the light is red. See PHASE_RightTurnControlType_code in TMDD.

Definition Source: CORSIM

Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name: ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=rtor allowed, 1=rtor prohibited

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

PHASE_SimultaneousGapOut_code

Descriptive Name Context:

Traffic Simulation

Definition:

This code specifies whether both rings in a dual ring controller must cross the

barrier at the same time.

Definition Source:

CORSIM Record 47

Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=Does, 1=Does not

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

PHASE_TimeBeforeReduction_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The time from the beginning of the approach phase green until the extension

(gap) time starts to be reduced (gap reduction) to some lesser value. Actuated Controllers in TRAF, 6

Definition Source:

Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

PHASE_TotalLength_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The total length of the phase.

Definition Source: CORSIM

Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type: **ASN1 Name:**

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_VehicleExtensionTime_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The time needed for a vehicle to traverse the distance from the detector to the

> > stop line.

Definition Source: Actuated Controllers in TRAF, 5

Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name: ASN1 Data Type:

float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Lavout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

> PHASE_WalkClearanceLength_quantity **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

> **Definition:** The time it takes for a pedestrian to travel the distance from curb line to curb

Definition Source: Actuated Controllers in TRAF, 6

> Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_WalkLength_quantity

Descriptive Name Context: Traffic Simulation

Definition: A traffic phase allocated to pedestrian traffic which may provide a right-of-way

indication either concurrently with one or more vehicular phases, or to the

exclusion of all vehicular phases.

Definition Source: FHWA Control Systems Glossary

Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_YellowEnd_quantity

Descriptive Name Context: Traffic Simulation

Definition: The end time for the yellow part of the phase.

Definition Source: CORSIM

Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_YellowLock_code

Descriptive Name Context: Traffic Simulation

Definition: If this memory lock toggle is "on" vehicle actuation which occur during the

yellow and red display of the signal phase are accumulated and remembered in the controller and used in the variable initial calculation and/or to call the phase

for service.

Definition Source: CORSIM Record 47

Class Name: Phase

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=Set, 1=Not set

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: PHASE_YellowStart_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The start time of the yellow part of the phase.

Definition Source: CORSIM Class Name: Phase

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: RAIL

Descriptive Name Context: Traffic Simulation

> Definition: A heavy vehicle traveling on rails involved in the transport of passengers and or

freight on a for-hire, charter, or franchised transit basis.

Definition Source: HCM Implied

> Class Name: Rail

> > Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: RAILROAD

Descriptive Name Context: Traffic Simulation

> Definition: A road consisting of two steel rails.

Definition Source:

Class Name: Railroad

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: Valid Value Rule: Internal Representation Layout: **Internal Layout Maximum Size:** Internal Layout Minimum Size:

> Remarks: Last Change 082799

Descriptive Name: RCTRL_Initialization_time

Descriptive Name Context: Traffic Simulation

> Definition: Maximum initialization time prior to simulation.

Definition Source: CORSIM Class Name: RCTRL

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: Character, Numeric string

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: MM.mmmm

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

RCTRL_InitializationPretimedSignalTransistion_code **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

> Definition: Timing plan transition codes.

Definition Source: CORSIM RCTRL Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name: ASN1 Data Type:

Representation Class Term:

Value Domain:

1=Immediate Transition, 2=Two-cycle Transition, 3=Three-cycle Transition Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

> **Descriptive Name:** RCTRL_InitializationRandomSeed_quantity

Descriptive Name Context: Traffic Simulation

Random number seed Definition: CORSIM

Definition Source: Class Name: **RCTRL**

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:** ASN1 Data Type: float Representation Class Term: Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: **Internal Layout Maximum Size: Internal Layout Minimum Size:**

> Remarks: Last Change 082799

Descriptive Name:

RCTRL TimeIntervalDuration_time

Descriptive Name Context: Definition:

Traffic Simulation Duration of the time interval.

Definition Source:

Class Name: RCTRL

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Character, A8 string

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

SSSSSSS

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Last Change 082799For a time period, the sum of the interval durations should Remarks:

equal the time period duration.

Descriptive Name:

RCTRL_TimeIntervalID_number

Descriptive Name Context:

Traffic Simulation Definition: Time Interval Number

Definition Source:

Class Name: **RCTRL**

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Number, I2 integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks:

Last Change 082799

Descriptive Name:

RCTRL_TimePeriodDuration_time

Descriptive Name Context:

Traffic Simulation

Definition: Duration of the time period.

Definition Source:

Class Name: **RCTRL**

Keywords:

137

Related Data Concept: Relationship Type: **ASN1 Name:**

> ASN1 Data Type: Character, A8 string

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: SSSSSSS

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: RCTRL_TimePeriodID_number

Descriptive Name Context: Traffic Simulation Definition: Time Period Number

Definition Source:

Class Name: **RCTRL**

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Number, I2 integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: RECREATIONALTRAILER

Descriptive Name Context: Traffic Simulation

Definition: A non-motorized recreational vehicle that is towed by a motorized vehicle.

Definition Source:

Class Name: RecreationalTrailer

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: RECREATIONVEHICLE

Descriptive Name Context: Traffic Simulation

Definition: A vehicle whose primary purpose is recreation

Definition Source:

Class Name: Recreation Vehicle

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: REGULATORYSIGN

Descriptive Name Context: Traffic Simulation

Definition: Any sign used to controll traffic or pedestrians.

Definition Source:

Class Name: RegulatorySign

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range:

and value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: ROAD

Descriptive Name Context: Traffic Simulation

Definition: A collection of links, which may or may not be contiguous, sharing the same

street name or highway number.

Definition Source:

Class Name: Road

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name: ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: SCENARIO Descriptive Name Context: Traffic Simulation

Definition: A specific configuration of a simulation.

Definition Source:

Class Name: Scenario

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: SCENARIO_AgencyName_text

Descriptive Name Context: Traffic Simulation

> Definition: The name of the agency creating this scenario.

Definition Source:

Class Name: Scenario

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: string

Representation Class Term:

Value Domain: Valid Value Range:

> Valid Value List: Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size: Internal Layout Minimum Size:

> Remarks: Last Change 082799

Descriptive Name: SCENARIO_CreationDate_date

Descriptive Name Context: Traffic Simulation

> Definition: The scenario creation date.

Definition Source:

Class Name: Scenario

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: Character, A8 string

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

MMDDYYYY

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: SCENARIO_SimulationID_number

Descriptive Name Context: Traffic Simulation

Definition: The ID number of the simulation.

Definition Source:

Class Name: Scenario

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: SCENARIO_UserName_text

Descriptive Name Context: Traffic Simulation

Definition: The name of the user creating this scenario.

Definition Source:

Class Name: Scenario

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: string

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule: esentation Layout:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: SEGMENT

Descriptive Name Context: Traffic Simulation

Definition: A segment is layered on a link or opposing pair of links to provide more detailed

geometric information for accurate microscopic simulation and graphical

display.

Definition Source:

Class Name: Segment

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name: ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

SHOULDER

Descriptive Name Context:

Traffic Simulation

Definition:

A non-driving lane attached to the right side of a road. It is generally intended as

a relatively reliable area to leave the road.

Definition Source:

Class Name: Shoulder

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Lavout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks:

Last Change 082799

Descriptive Name:

Descriptive Name Context:

Traffic Simulation

SIGN

Sign

Definition:

An informational, directional or regulatory sign placed along a Segment.

(Contrasted with ControlSign, which is conceptually a type of Signal controlling

an Intersection).

Definition Source:

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks:

Last Change 082799

Descriptive Name:

SIGNAL

Descriptive Name Context:

Traffic Simulation

Definition:

Any display that employs lights, motion or sound to control traffic or

pedestrians.

Definition Source:

Class Name: Signal

Keywords:
Related Data Concept:
Relationship Type:
ASN1 Name:
ASN1 Data Type:

Representation Class Term: Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: SIGNALHARDWARE
Descriptive Name Context: Traffic Simulation

Definition: Any of the hardware used for traffic signals.

Definition Source:

Class Name: SignalHardware

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: SIGNALINTERVAL
Descriptive Name Context: Traffic Simulation

Definition: The permissive time interval given to each approach of a fixed time controlled

intersection.

Definition Source:

Class Name:

SignalInterval

Keywords: Related Data Concept:

Relationship Type:
ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: SIGNALINTERVAL_ControlCode_code

Descriptive Name Context: Traffic Simulation

> Definition: The control code for a signal interval for an approach to an intersection.

Definition Source: CORSIM Class Name: SignalInterval

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=amber/yield, 1=green ball, 2=red ball, 3=red w/ right green arrow, 4=red w/

> left green arrow, 5=stop sign, 6=red w/ green diagonal, 7=green through w/ no turns, 8=green arrows w/ no through, 9=green through and right w/ no left turn.

Valid Value Rule:

Internal Representation Layout: **Internal Layout Maximum Size:** Internal Layout Minimum Size:

> Remarks: Last Change 082799Multiple instantiations

SIGNALINTERVAL_Duration_quantity **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

> The duration of a fixed time controller signal interval Definition:

Definition Source: CORSIM SignalInterval Class Name:

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout: SSSS.ssss

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799Multiple instantiations

Descriptive Name: SIGNALPEDESTRIAN

Descriptive Name Context: Traffic Simulation

Definition Source:

Definition: An intersection control signal used to control pedestrian movement.

Class Name:

SignalPedestrian Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: SINGLEUNITTRUCK

Descriptive Name Context: Traffic Simulation Definition: A truck whose cab (tractor) and load bed (trailer) comprise a single entity.

Definition Source:

Class Name: SingleUnitTruck

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: SURVEILLANCE Descriptive Name Context: Traffic Simulation

Definition: Any procedure or system used to monitor traffic.

Definition Source:

Class Name: Surveillance

Keywords: **Related Data Concept:**

Relationship Type: **ASN1 Name:**

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TIMINGPLAN Descriptive Name Context: Traffic Simulation

Definition:

The timing plan for a fixed time controller.

Definition Source:

Class Name: TimingPlan

Keywords: **Related Data Concept:**

> Relationship Type: **ASN1 Name:**

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

TIMINGPLAN_ConditionalService_code

Descriptive Name Context:

Traffic Simulation

Definition:

This code determines is a left turn phase can be serviced twice during the controllers background cycle length if the time remaining in the cycle is greater

than a user specified time.

Definition Source:

Actuated Controllers in TRAF TimingPlan

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

0=enable, 1=disable

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

TIMINGPLAN_CoordinationLength_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The time during phase 2 green before T0 that is allowed for system

coordination.

Definition Source:

Actuated Controllers in TRAF

Class Name:

TimingPlan

Keywords: **Related Data Concept:**

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TIMINGPLAN_DualEntryOperation_code

Descriptive Name Context:

Traffic Simulation

Definition:

In dual ring operation, this code indicates if in the absence of a call on a compatible phase in the opposite ring if the partner phase will also display

Definition Source:

Actuated Controllers in TRAF

Class Name:

TimingPlan

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=enable, 1=disable

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

TIMINGPLAN_LastCarPassage_code

Descriptive Name Context:

Traffic Simulation

TimingPlan

Definition:

This code determines that if gap reduction has been initiated and the phase gapsout, the last vehicle crossing the detector before the gap-out will receive the

initial or full extension time.

Definition Source:

Actuated Controllers in TRAF, 6

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

integer

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

0=enable, 1=disable

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

TIMINGPLAN_LocalCycleLength_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The length of one timing cycle for a controller.

Definition Source:

Actuated Controllers in TRAF

Class Name:

Timingplan

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks:

Last Change 082799

Descriptive Name: TIMINGPLAN_LocalT0_quantity

Descriptive Name Context: Traffic Simulation

Definition: The time of T0 in system time. **Definition Source:** Actuated Controllers in TRAF

Class Name: Timingplan

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TIMINGPLAN_MinimumGap_quantity

Descriptive Name Context: Traffic Simulation

Definition: The minimum acceptable gap allowed.

Definition Source: Actuated Controllers in TRAF

Class Name: TimingPlan

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TIMINGPLAN_Node_number

Descriptive Name Context: Traffic Simulation

Definition: The node/intersection identifier for the timing plan.

Definition Source: Actuated Controllers in TRAF

Class Name: TimingPlan

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=immediate, 1=two-cycle, 2=three-cycle

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TIMINGPLAN_Offset_quantity

Descriptive Name Context: Traffic Simulation

Definition: The time relationship expressed in seconds or percent of cycle length,

determined by the difference between a defined interval portion of the

coordinated phase green and a system reference point.

Definition Source: FHWA Control Systems Glossary

Class Name: TimingPlan

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule: Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TIMINGPLAN_SimultaneousGapOut_code

Descriptive Name Context: Traffic Simulation

Definition: In dual ring operation, this code determines if the controller will service another

phase if both active phases are not in gap-out or max-out mode.

Definition Source: Actuated Controllers in TRAF

Class Name: TimingPlan

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=enable, 1=disable

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TIMINGPLAN_SystemCycleLength_quantity

Descriptive Name Context: Traffic Simulation

Definition: The background cycle length. The time from the beginning of main street green

through all the phases back to the beginning of main street green.

Definition Source: Actuated Controllers in TRAF

Class Name: Timingplan

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

TimingPlan

Descriptive Name:

TIMINGPLAN_Transition_code

Descriptive Name Context:

Traffic Simulation

Definition:

The timing plan transition type for a fixed time controller.

Definition Source:

Actuated Controllers in TRAF

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

0=immediate, 1=two-cycle, 2=three-cycle

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

TIMINGPLAN_YieldInterval_quantity

Descriptive Name Context:

Traffic Simulation

float

Definition:

This is the only period of time during the cycle when phase 1 may be

terminated.

TimingPlan

Definition Source:

FHWA Control Systems Glossary

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

TIMINGPLAN_YieldPoint_quantity

Descriptive Name Context:

Traffic Simulation

TimingPlan

Definition:

The Yield Point begins a period of time known as the Yield Interval. This is the

only period of time during the cycle when phase 1 may be terminated.

Definition Source:

FHWA Control Systems Glossary

Class Name:

Keywords:

Related Data Concept:

Relationship Type: ASN1 Name:

ASN1 Data Type: floa

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TRAFFICASSIGNMENT_AcceptableThreshold_quantity

Descriptive Name Context: Traffic Simulation

Definition: The assignment process terminates when the maximum number of iterations is

reached, or when the relative change of the objective function between two successive iterations is less or equal to the threshold value (Epsilon), whichever

occurs first.

Definition Source: CORSIM Record 175
Class Name: Traffic Assignment

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TRAFFICASSIGNMENT_AccuracyThreshold_quantity

Descriptive Name Context: Traffic Simulation

Definition: The line-search accuracy threshold.

Definition Source: CORSIM Record 175
Class Name: Traffic Assignment

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: flo

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TRAFFICASSIGNMENT_AllOrNothingPercentage_quantity

Descriptive Name Context: Traffic Simulation

Definition: Percentage of the impedances produced by an all-or-nothing network loading

that will be incorporated in the first assignment iteration.

Definition Source: CORSIM Record 175 TrafficAssignment Class Name:

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TRAFFICASSIGNMENT_CapacityIterations_number

Descriptive Name Context: Traffic Simulation

> Definition: Number of capacity iterations to be applied.

Definition Source: CORSIM Record 175 Class Name: TrafficAssignment

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Last Change 082799 Remarks:

Descriptive Name: TRAFFICASSIGNMENT_CapacitySmoothingPercentage_quantity

Descriptive Name Context: Traffic Simulation

Definition: Capacity smoothing factor to be applied if more than one capacity adjustment

iteration is requested.

Definition Source: CORSIM Record 175 TrafficAssignment

Class Name: Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Lavout: **Internal Layout Maximum Size:**

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TRAFFICASSIGNMENT_DavidsonRatio_quantity

Descriptive Name Context: Traffic Simulation

> Definition: Ratio of the service discharge rate to the saturation rate.

Definition Source: CORSIM Record 175 Class Name: **TrafficAssignment**

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Lavout: **Internal Layout Maximum Size:**

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TRAFFICASSIGNMENT_ID_number

Descriptive Name Context: Traffic Simulation

Definition: This will uniquely identify a set of assignment parameters.

Definition Source: **CORSIM Record 175**

Class Name: TrafficAssignment

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TRAFFICASSIGNMENT_ImpedanceFunction_code

Descriptive Name Context: Traffic Simulation

Definition: This code identifies the impedance function used.

Definition Source: CORSIM Record 175

Class Name: TrafficAssignment Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=FHWA impedance function, 1=Modified Davidson impedance function,

2=other function

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

TRAFFICASSIGNMENT_MaximumIterations_number

Descriptive Name Context:

Traffic Simulation

Definition:

The assignment process terminates when the maximum number of iterations is reached, or when the relative change of the objective function between two successive iterations is less or equal to the threshold value (Epsilon), whichever

occurs first.

Definition Source:

CORSIM Record 175 TrafficAssignment

Class Name: **Keywords:**

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: **Internal Layout Maximum Size:**

Internal Layout Minimum Size: Remarks:

Last Change 082799

Descriptive Name:

TRAFFICASSIGNMENT_OptimalityType_code

Descriptive Name Context:

Traffic Simulation

Definition:

This code identifies which optimazation to use.

Definition Source:

CORSIM Record 175 TrafficAssignment

Integer

Class Name: Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

0=User's optimal assignment, 1=System's optimal assignment

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

TRAFFICASSIGNMENT_ParameterA_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

This item assumes the CORSIM assignment function. The first parameter for

the impedance function.

Definition Source:

CORSIM Record 175 TrafficAssignment

Class Name: **Keywords:**

Related Data Concept: Relationship Type: **ASN1 Name:**

> **ASN1** Data Type: float

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TRAFFICASSIGNMENT_ParameterB_quantity

Descriptive Name Context: Traffic Simulation

Definition: This item assumes the CORSIM assignment function. The second parameter for

the impedance function.

Definition Source: CORSIM Record 175 Class Name: TrafficAssignment

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TRAFFICCONTROL **Descriptive Name Context: Traffic Simulation**

Definition: Any signal device used to control traffic.

Definition Source:

Class Name: TrafficControl

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: **Internal Layout Maximum Size:**

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TRANSIT

Descriptive Name Context: Traffic Simulation

Definition: **Public Transportation**

Definition Source:

Class Name: Transit

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name: ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Lavout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TRANSIT_DwellTimePercentage_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The factor by which the mean dwell time is multiplied to compute the actual

> > dwell time that the transit unit spends servicing passenger at an individual stop.

Definition Source: CORSIM Record 150

Class Name: Transit

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

TRANSITROUTE_DownstreamNode_number **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

> Definition: The downstream node number.

Definition Source: CORSIM Record 187

> Class Name: **TransitRoute**

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TRANSITROUTE_ID_number

Descriptive Name Context:

Traffic Simulation

Definition:

This number uniquely identifies the transit route.

Definition Source:

CORSIM Record 187

Class Name:

TransitRoute

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

TRANSITROUTE_MeanHeadway_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The mean headway between transit vehicles on this route.

Definition Source:

CORSIM Record 189 TransitRoute

Class Name: Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

float

Descriptive Name:

TRANSITROUTE_Offset_quantity

Descriptive Name Context:

Traffic Simulation

Definition: An offset time at which a transit vehicle is emitted onto the route.

Definition Source: CORSIM Record 188

TransitRoute

Class Name:

Keywords: **Related Data Concept:**

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size: Internal Layout Minimum Size:

> Remarks: Last Change 082799

Descriptive Name:

 $TRANSITROUTE_StationID_number$

Descriptive Name Context:

Traffic Simulation

Transit Route

Definition:

The transit route station ID.

Definition Source:

CORSIM Record 188

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

TRANSITROUTE_UpstreamNode_number

Descriptive Name Context:

Traffic Simulation Definition:

The upstream node number. **CORSIM Record 187**

Definition Source: Class Name:

TransitRoute

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

TRANSITSTATION_Distance_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The distance from the downstream end of the transit stop to the downstream

stop bar.

float

Definition Source:

CORSIM Record 185 TransitStation

Class Name: Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List: Valid Value Rule: **Internal Representation Layout:**

Internal Layout Maximum Size: **Internal Layout Minimum Size:**

> Remarks: Last Change 082799

TRANSITSTATION_DownstreamNode_number **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

The nearest downstream node number. Definition:

Definition Source: CORSIM Record 185

Class Name: TransitStation Keywords:

Related Data Concept:

Relationship Type: **ASN1 Name:**

ASN1 Data Type: integer

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: **Internal Layout Maximum Size:**

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TRANSITSTATION_ID_number

Traffic Simulation Descriptive Name Context:

This number uniquely identifies the transit station. Definition:

CORSIM Record 185 Definition Source:

Class Name: TransitStation

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TRANSITSTATION_MaximumTransitVehicles_number

Descriptive Name Context: Traffic Simulation

The maximum number of transit vehicles the station can hold at one time. Definition:

CORSIM Record 185 Definition Source:

Class Name: TransitStation

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

ASN1 Data Type: integer

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Lavout: **Internal Layout Maximum Size: Internal Layout Minimum Size:**

> Remarks: Last Change 082799

Descriptive Name: TRANSITSTATION_MeanDwellTime_quantity

Descriptive Name Context: Traffic Simulation

> Definition: The mean dwell time for transit vehicles to load and unload passengers at this

> > station.

Definition Source: CORSIM Record 186

> Class Name: TransitStation

Keywords:

Related Data Concept:

Relationship Type: ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: $TRANSITSTATION_Protected_code$

Descriptive Name Context: Traffic Simulation

Definition: This code indicates whether the transit stop is protected or not. For example, the

stop may be a turnout and does not block traffic.

Definition Source: CORSIM Record 185

> Class Name: **TransitStation**

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List: 0=Protected, 1=Unprotected

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TRANSITSTATION_ServicePercentage_quantity

Descriptive Name Context: Traffic Simulation

> Definition: Percentage of transit vehicles servicing this station that do not stop due to lack

> > of demand.

Definition Source: CORSIM Record 186

Class Name: TransitStation

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: floar

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TRANSITSTATION_Type_code

Descriptive Name Context: Traffic Simulation

Definition: This code identifies the transit station type.

Definition Source: CORSIM Record 150

Class Name: Transit

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TRANSITSTATION_UpstreamNode_number

Descriptive Name Context: Traffic Simulation

Definition: The nearest upstream node number.

Definition Source: CORSIM Record 185

Class Name: TransitStation

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: TRUCK

Descriptive Name Context: Traffic Simulation

Definition:

A vehicle use to transport freight.

Definition Source:

Class Name: Truck

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

TWOLANEHIGHWAY

Descriptive Name Context:

Traffic Simulation

Definition:

A roadway having a two-lane cross section with one lane for each direction of

flow, on which passing maneuvers must be made in the opposing lane.

Definition Source:

Class Name:

TwoLaneHighway

HCM A-5

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks:

Last Change 082799

Descriptive Name:

TWOWAYLEFTTURNLANE

Descriptive Name Context:

Traffic Simulation

Definition:

The center lane on a three-lane or multilane highway which is used continuously

for vehicles turning left in either direction of flow at midblock locations.

Definition Source: HCM A-5

Class Name:

TwoWayLeftTurnLane

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: USER

Descriptive Name Context: Traffic Simulation

Definition: Any driver, passenger or pedestrian who uses a road.

Definition Source:

Class Name: User

Keywords:

Related Data Concept: Relationship Type: ASN1 Name:

ASN1 Data Type: Representation Class Term:

Value Domain: Value Range:

alid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: VARIABLEDISPLAY

Descriptive Name Context: Traffic Simulation

Definition: A type of display hardware which can change in response to changing

conditions on the road. An example would be changeable message signs.

Definition Source:

Class Name: VariableDisplay

Keywords: Related Data Concept:

Relationship Type: ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule: Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: VEHICLE

Descriptive Name Context: Traffic Simulation

Definition: Any powered device use to convey passengers or freight on a road.

Definition Source:

Class Name: Vehicle

Keywords:

Related Data Concept:

Relationship Type: ASN1 Name:

ASN1 Data Type: Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

VEHICLE_Acceleration_quantity **Descriptive Name:**

Descriptive Name Context: Traffic Simulation

> Definition: The acceleration of a vehicle at a given instant.

Definition Source: CORSIM Class Name: Vehicle

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

> ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

VEHICLE_AccelerationMaximum_quantity **Descriptive Name:**

Traffic Simulation **Descriptive Name Context:**

The maximum acceleration of a vehicle on a level road. **Definition:**

Definition Source: CORSIM Class Name: Vehicle

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

VEHICLE_DecelerationMaximum_quantity **Descriptive Name:**

164

Descriptive Name Context: Traffic Simulation

The maximum deceleration allowed on level grade and dry pavement. Definition:

Definition Source: CORSIM Record 71

Class Name: Vehicle

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: VEHICLE_Height_quantity

Descriptive Name Context: Traffic Simulation

Definition: The height of a vehicle.

Definition Source: CORSIM Class Name: Vehicle

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name: ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range:

Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: VEHICLE_Length_quantity

Descriptive Name Context: Traffic Simulation **Definition:** The length of a vehicle.

Definition Source: CORSIM
Class Name: Vehicle

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: VEHICLE_LoadWeight_quantity

Descriptive Name Context: Traffic Simulation

Definition: The weight of cargo and occupants carried by a vehicle.

Definition Source: CORSIM Vehicle Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

ASN1 Data Type: float

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

> Remarks: Last Change 082799

Descriptive Name: VEHICLE_LoadWeightMaximumRecommended_quantity

Descriptive Name Context: Traffic Simulation

The recommended maximum cargo weight for a vehicle. Definition:

Definition Source: CORSIM Class Name: Vehicle

Keywords:

Related Data Concept: Relationship Type: **ASN1 Name:**

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: VEHICLE_NonEmergencyMaximumDeceleration_quantity

Descriptive Name Context: Traffic Simulation

> **Definition:** The largest value of deceleration that is allowed for car following.

CORSIM Record 70 Definition Source:

> Class Name: Vehicle

Keywords:

Related Data Concept:

Relationship Type: **ASN1 Name:**

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: **Internal Layout Maximum Size:**

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: VEHICLE_Occupancy_quantity

Descriptive Name Context: Traffic Simulation

Definition: The number of people, including the driver, inside a vehicle. Definition Source: CORSIM Class Name: Vehicle

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name: ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

integer

Descriptive Name: VEHICLE_OccupancyMaximum_quantity

Descriptive Name Context: Traffic Simulation

Definition: The maximum number of people, including the driver, that should be carried in

a particular vehicle.

Definition Source: CORSIM
Class Name: Vehicle

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: integer

Representation Class Term:

Value Domain: Valid Value Range:

alid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: VEHICLE_PowerMaximum_quantity

Descriptive Name Context: Traffic Simulation

Definition: The maximum power produced by a vehicle's engine.

Definition Source: CORSIM Class Name: Vehicle

Keywords:

Related Data Concept: Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range: Valid Value List:

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

VEHICLE_ProjectedFrontalArea_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The area of a vehicle's silhouette projected onto a vertical plane in front of the

vehicle. (Influences drag characteristics.)

Definition Source: CORSIM

Class Name: Vehicle

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

CORSIM

Descriptive Name:

VEHICLE_Speed_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The speed of a vehicle at a given instant.

Definition Source:

Class Name: Vehicle

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type: float

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

VEHICLE_SpeedMaximum_quantity

Descriptive Name Context:

Traffic Simulation

Definition:

The maximum speed of a vehicle on a level road.

Definition Source:

CORSIM Vehicle

Class Name:

Keywords:

Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

Valid Value Rule:

Internal Representation Layout:

Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name:

VEHICLE_Type_code

Descriptive Name Context:

Traffic Simulation

Definition:

This code identifies the vehicle type.

Definition Source:

AASHTO

Class Name:

ame: Vehicle

Keywords: Related Data Concept:

Relationship Type:

ASN1 Name:

ASN1 Data Type:

Integer

Representation Class Term:

Value Domain:

Valid Value Range:

Valid Value List:

0=Passenger car, 1=Single unit truck, 2=single unit bus, 3=Articulated bus,

4=intermediate semitrailer truck, 5=large semitrailer truck, 6=double bottom semitrailer, 7=interstate 14.6m semitrailer, 8=interstate 16.2m semitrailer, 9=triple semitrailer, 10=turnpike double semitrailer, 11=RV motor home, 12=RV car and camper trailer, 13=RV car and boat trailer, 14=RV motor home

and boat trailer

Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size:

Internal Layout Minimum Size:

Remarks: Last Change 082799

Descriptive Name: WARNINGSIGN
Descriptive Name Context: Traffic Simulation

Definition: Any sign used to warn motorists or pedestrian of a hazard or impediment to

traffid

Definition Source: Traffic Engineering, McShane, et al

Class Name: WarningSign

Keywords:

Related Data Concept: Relationship Type: ASN1 Name: ASN1 Data Type:

Representation Class Term:

Value Domain: Valid Value Range: Valid Value List: Valid Value Rule:

Internal Representation Layout: Internal Layout Maximum Size: Internal Layout Minimum Size:

Remarks: Last Change 082799

Object Model

Unified Modeling Language

The object model is presented in this section by means of Unified Modeling Language (UML) class diagrams. A brief description of UML diagrams and terms is given in the appendix.

If the entire model were to be presented on a single page, with every class and relation drawn, the diagram would be too complex to be meaningful. Hence, each diagram is a filtered view intended to emphasize some aspect of the model. The diagrams are to the model as an architect's drawings are to a building – there may be a wiring diagram, a plumbing diagram, front and side elevations, perspective views, etc., all showing different aspects of the same building. Thus a class may appear in more than one diagram, perhaps showing different relations for the class, but each diagram is referring to the same class.

The first diagram presents the highest-level view of the object model. In this case, a very high level view of a generic traffic simulation. Since our interest is the Database Package, subsequent pages show different views related to the database.

Associated with each class are its attributes. Some classes have a few or no attributes while other classes have a large number of attributes. There isn't enough room on a page sometimes to show the attributes. It's for this reason that some of the diagrams show the class attributes and others do not. However, the classes and attributes and listed with their definitions in the Class Dictionary table and Attribute Dictionary table following the diagrams. The classes and attributes can also be seen in the TSDD in the preceeding section. The naming format is:

CLASSNAME_AttributeName_datatype or "MOE"_ClassName_AttributeName_datatype or "CLASSNAME"

Diagrams

The following is a list of the UML diagrams:

Top Level – Generic Traffic Simulation

Database Package

Facilities Generalization

Displays Generalization

Vehicles Generalization

Users Generalization

Lane Generalization

Event Generalization

Surveillance Generalization

Network Geometry View

Fixed Time Controller View

Actuated Controller View

Vehicle View

Driver View

Transit View

Application View

Environment Subpackage

Top Level - Generic Traffic Simulation

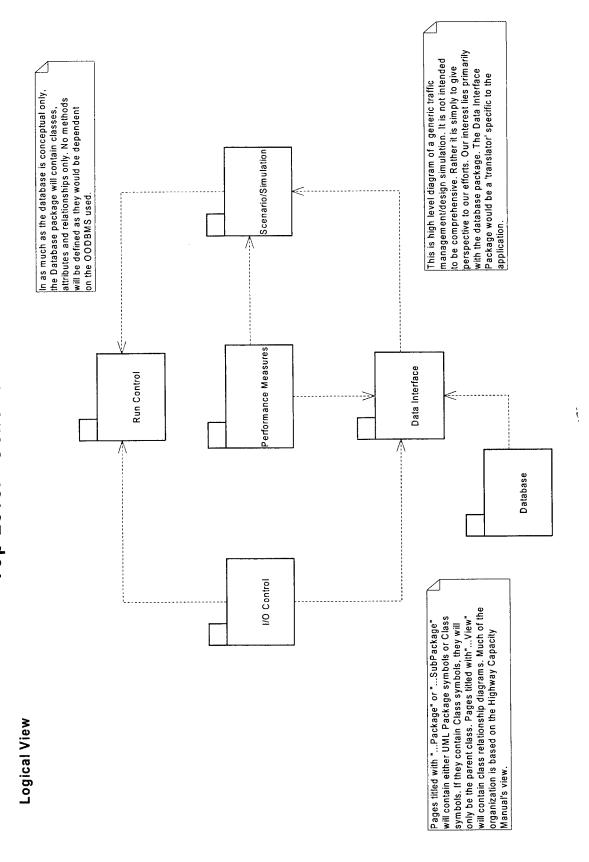


Figure 2 - Database Package

Database Package

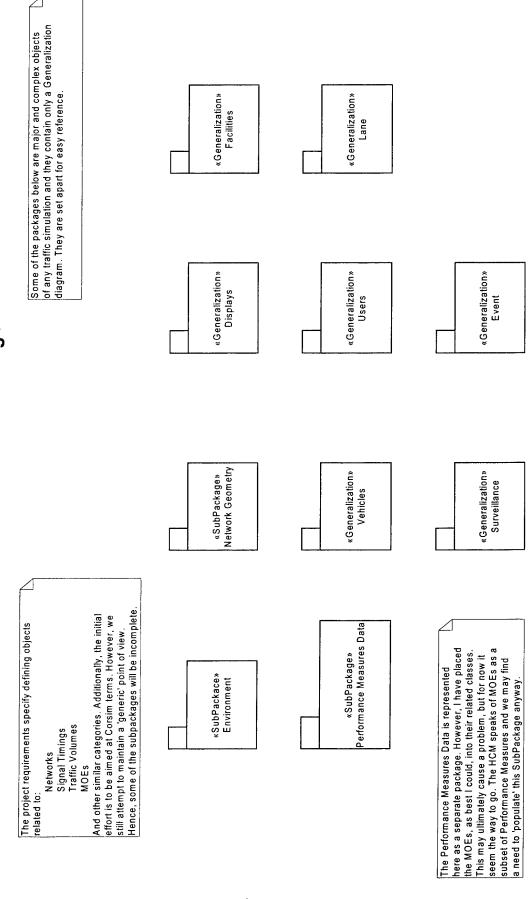


Figure 3 - Facilities Generalization

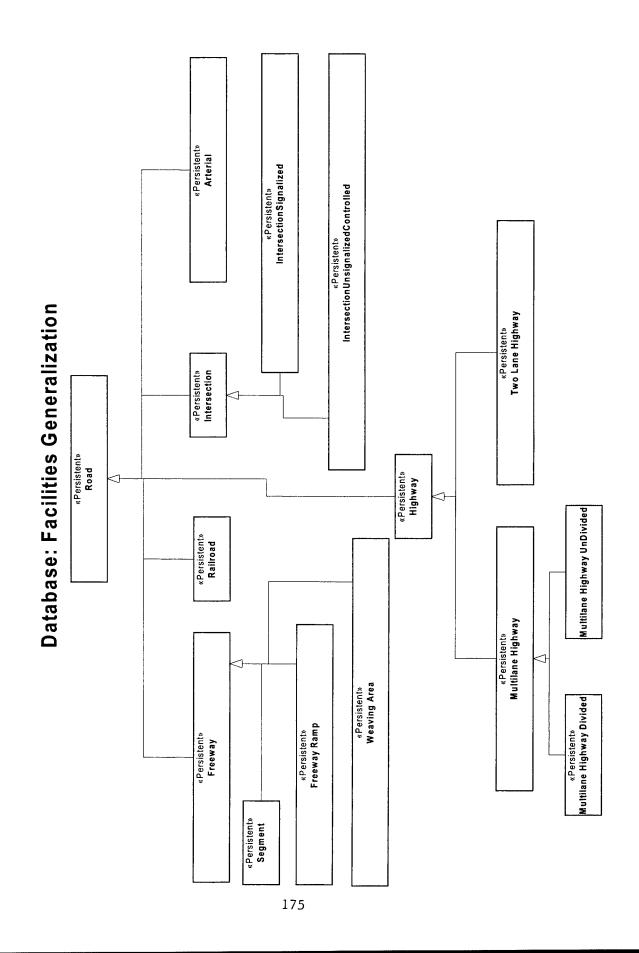
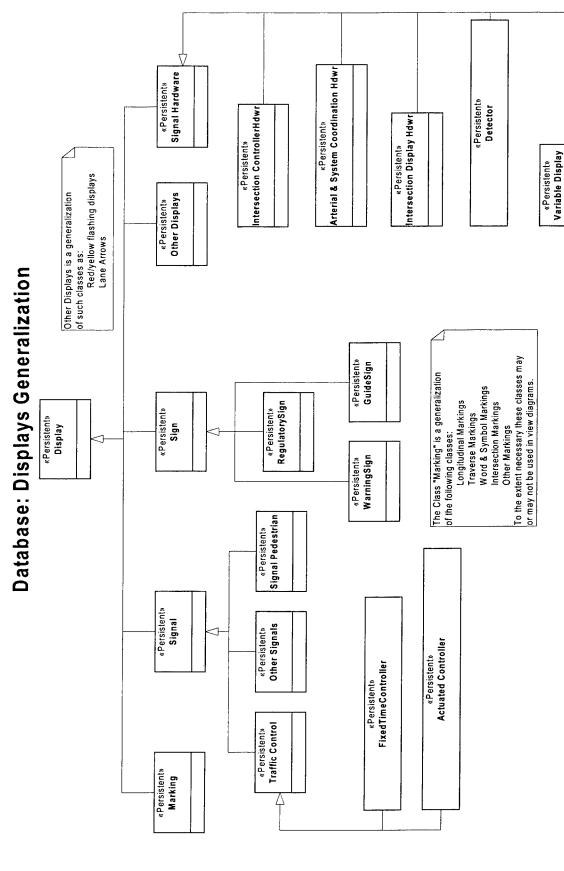
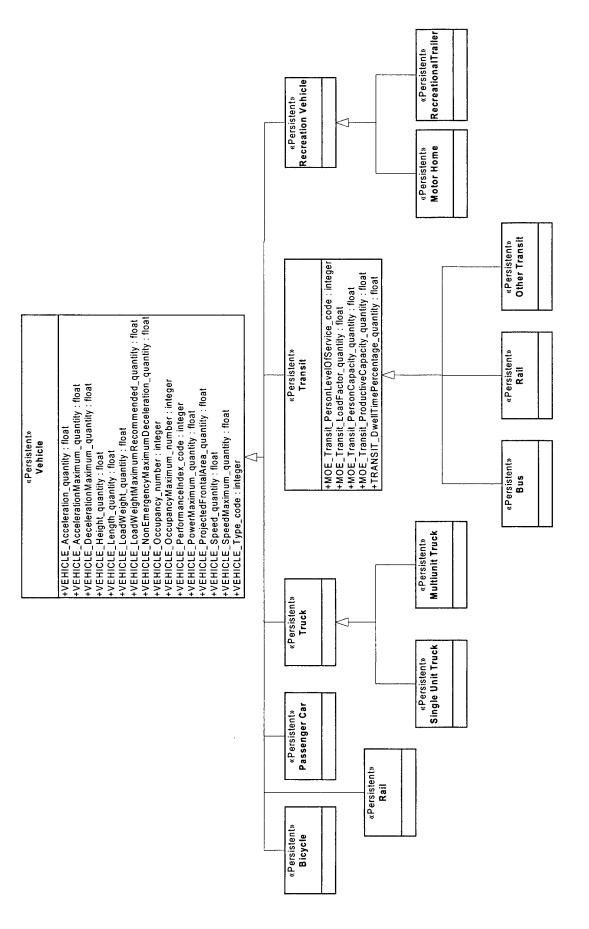


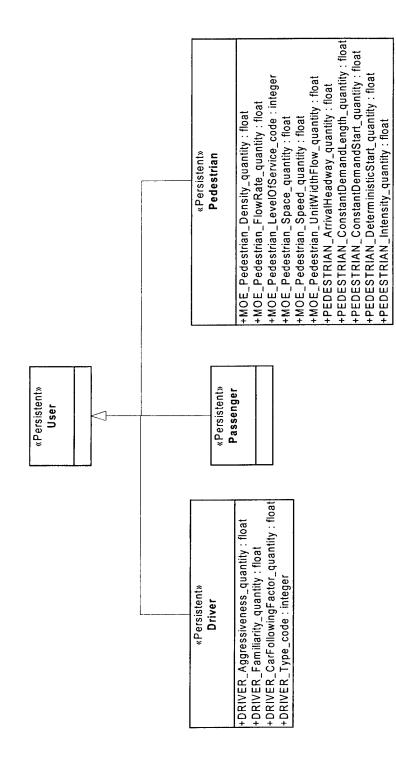
Figure 4 - Displays Generalization



Database: Vehicles Generalization



Database: Users Generalization



Database: Lane Generalization

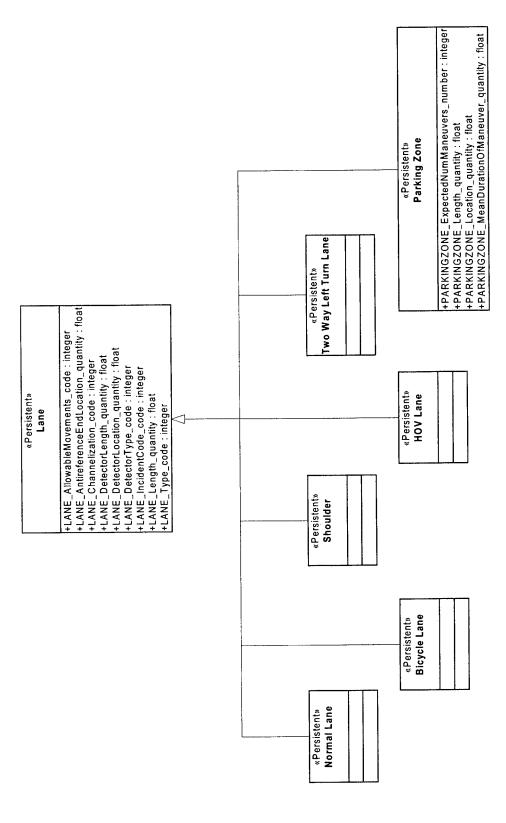


Figure 8 - Event Generalization

Database: Event Generalization

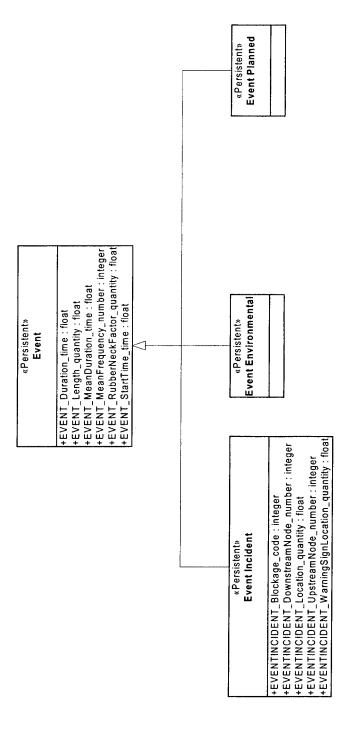
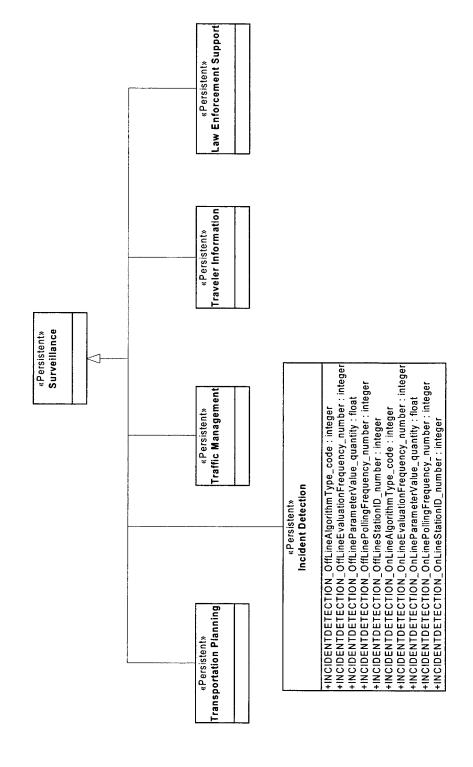


Figure 9 - Surveillance Generalization

Database: Surveillance Generalization



Database: Network Geometry View

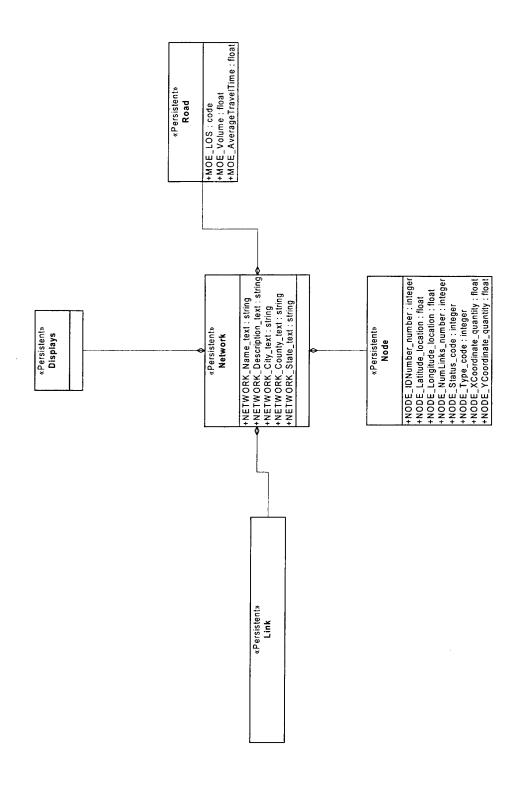
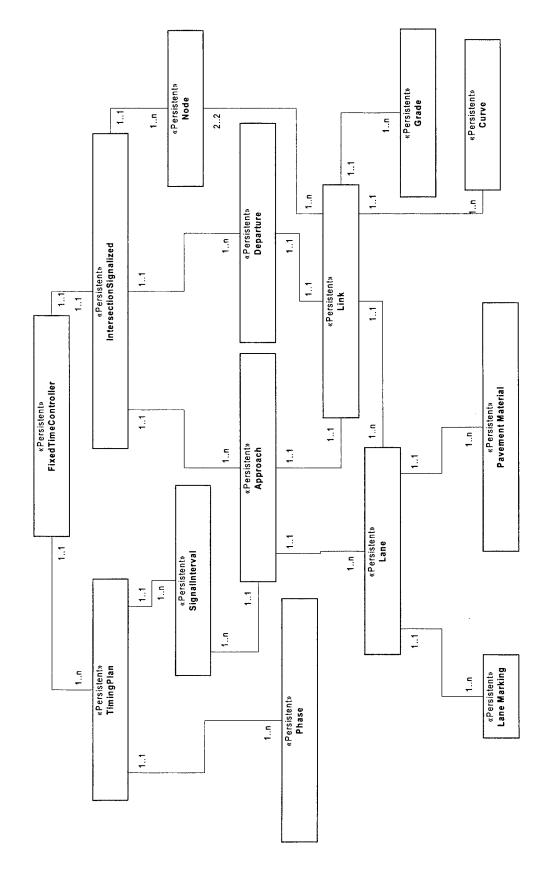


Figure 11 - Fixed Time Controller View

Database: Fixed Time Controller View



Database: Actuated Controller View

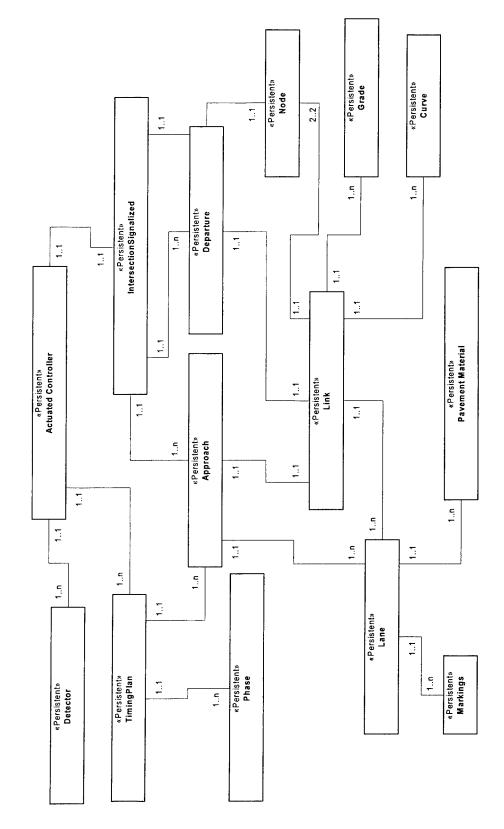


Figure 13 - Vehicle View

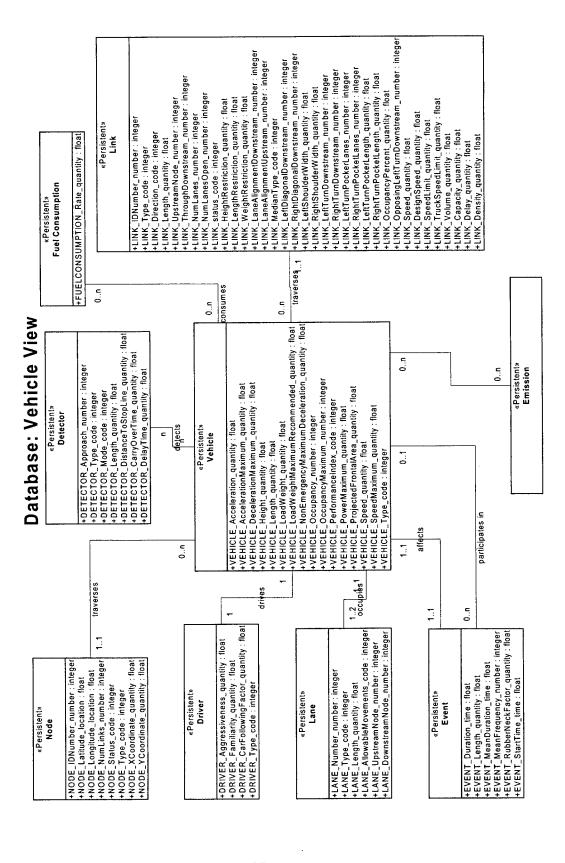
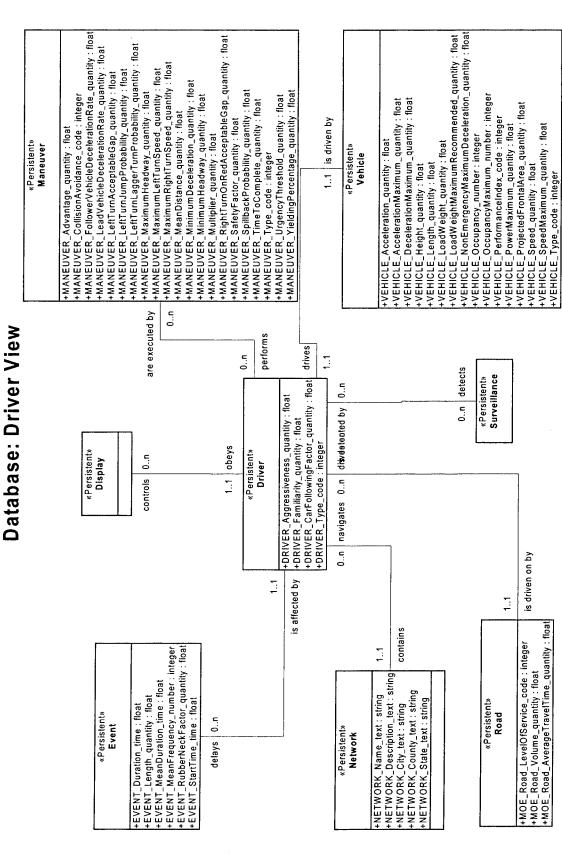


Figure 14 - Driver View





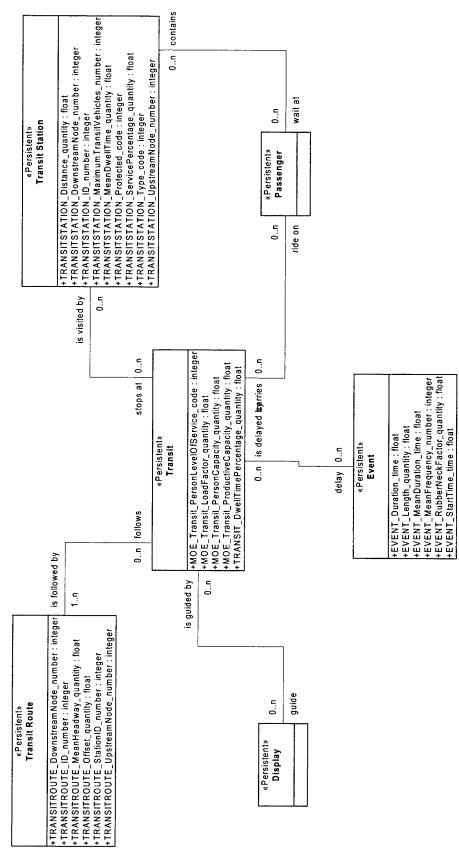
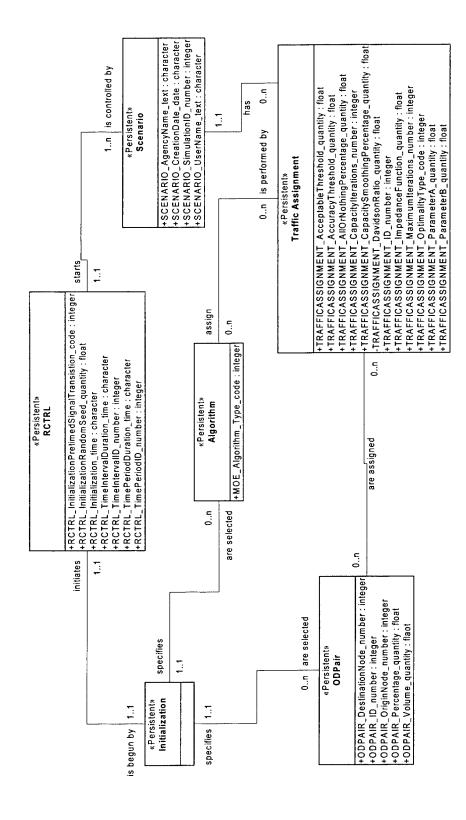
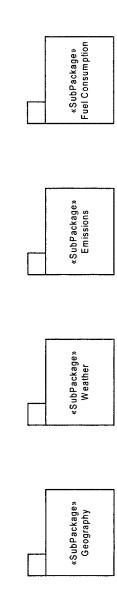


Figure 16 - Application View

Database: Application View



Database: Environment SubPackage



Class Dictionary

This table allows you to look up the classes found in the object diagram and read a brief description of them.

Name	Definition
ACTUATEDCONTROLLER	A controller whose phase changes can be triggered by
	traffic sensor data.
APPROACH	The region of an intersection through which cars
	approaching the intersection from a single Segment enter
	the intersection.
ARTERIAL	Signalized streets that serve primarily through traffic and
	provide access to abutting properties as a secondary
	function, having signal spacings of 2 mi or less and turn
	movements at intersections that usually do not exceed 20
	percent of total traffic.
ARTERIAL&SYSTEMCOORDINATIONHARDWARE	Any hardware used to coordinate traffic on arterials or
	within a traffic system.
BICYCLE	A vehicle having two tandem wheels propelled solely by
	human power, upon which any person or person may ride.
BICYCLELANE	A portion of a road which has been designated by striping,
	signing, and pavement markings for the preferential or
	exclusive use of bicyclists.
BUS	A heavy vehicle involved in the transport of passengers on
	a for-hire, charter, or franchised transit basis.
ACTUATEDCONTROLLER	A controller for supervising the operation of traffic control
	signals in accordance with the varying demands of traffic as
	registered with the controller by traffic detectors.
CURVE	An arbitrarily shaped line in two dimensions. The curve
	must have continuity at all points. In other words, it must
	be one connected piece, but it can have sharp corners (or
	not) anywhere.
DEPARTURE	The region of an intersection through which vehicles leave
	the intersection.
DETECTOR	A device for indicating the presence or passage of vehicles
	or pedestrians. This general term is usually supplemented
	with a modifier, i.e., loop detector, magnetic detector
	indicating type.
DISPLAY	Any device or group of devices for displaying the rules for
	moving or for controlling the movement of vehicles on a
	roadway.
DRIVER	A person or other intelligent agent operating a vehicle.
EVENT	Any occurrence which causes a reduction in capacity or
	abnormal increase in demand on a road.
EVENTENVIRONMENTAL	An environmental occurrence which causes a reduction in
	capacity or abnormal increase in demand on a road
EVENTINCIDENT	An (unplanned/unanticipated) occurrence in the traffic
	stream which causes a reduction in capacity or abnormal
VICIN DI IND EMPORITO II	increase in demand.
INCIDENTDETECTION	The arrangement of detectors and processing of detector
	information to arrive at the decision that some type of
	incident has probably occurred in the traffic stream. May
	also be done by visual and third-party reporting means.
EVENTPLANNED	A planned occurrence which causes a reduction in capacity
	or abnormal increase in demand on a road

Name	Definition
FIXEDTIMECONTROLLER	Controller that operate on predetermined, fixed intervals and phase timings.
FREEWAYRAMP	A short segment of roadway serving as a connection between two traffic facilities; usually services flow in one direction only.
FREEWAYWEAVINGAREA	Sections of the freeway where two or more vehicle flows must cross each other's path along a length of the freeway.
GRADE	The slope of the roadway measured as a percentage of deviation from horizontal. A vertical slope would be a grade of 100%.
GUIDESIGN	Any traffic sign used to provide information to a motorist or pedestrian.
HIGHWAY	A non-freeway road used for intercity travel.
HOVLANE	High Occupancy Vehicle Lane. A type of lane designated for travel only by vehicles with multiple occupants.
INITIALIZATION	Run control initialization
INTERSECTION	The common area of roadways that meet or cross.
INTERSECTIONCONTROLLERHARDWARE	Any hardware device used to control traffic at intersections.
INTERSECTIONDISPLAYHARDWARE	Any hardware display device used to control traffic at intersections.
INTERSECTIONSIGNALIZED	An intersection whose traffic is controlled by a controller.
INTERSECTIONUNSIGNALIZEDCONTROLLED	An intersection that is controlled by devices other than signals, such as stop signs.
LANE	Unidirectional roadway that carries a single-file stream of vehicles.
LANEMARKING	A marking on the lane to inform or direct drivers or pedestrians. Examples would be passing/no passing lines, directional arrows and pedestrian crossing lines.
LINK	A one-way section of roadway between two nodes. It is intended that attributes of the TSDD's Link will conform as much as possible to the TMDD's LINK data elements.
MARKING	Any mark on a lane, link, highway, etc. used to control drivers or pedestrians.
MOTORHOME	A recreational motor vehicle which usually contains facilities for sleeping and eating.
MULTILANEHIGHWAY	A highway with at least two lanes for the exclusive use of traffic in each direction, with no or partial control of access, that may have periodic interruptions to flow at signalized intersections.
MULTILANEHIGHWAYDIVIDED	A subclass of MultilaneHighway in which the opposing lanes are separated by a median or two-way left turn lane.
MULTILANEHIGHWAYUNDIVIDED	A subclass of MultilaneHighway in which the opposing lanes are not separated by a median or two-way left turn lane.
MULTIUNITTRUCK	A truck whose cab (tractor) is a separate entity from its load bed (trailer).
NETWORK	A network is the aggregation of the important permanent components of a traffic model. Vehicles are not included because, for purposes of the model, they are transitory.
NODE	A point where two or more links meet. A node specifies connectivity in the network but has no dimension or shape. It is intended that the TSDD's Node will conform as much as possible to the TMDD's Node.
NORMALLANE	This is an ordinary lane for carrying traffic in one direction
PASSENGER	Any rider in a vehicle that is not the driver.
PASSENGERCAR	A personal vehicle generally used to transport passengers.
PAVEMENTMATERIAL	The type of pavement used for some part of a roadway.

Name	Definition
PEDESTRIAN	An individual traveling on foot.
PHASE	The part of the signal cycle allocated to any combination of traffic movements receiving the right-of-way simultaneously during one or more intervals.
RAIL	A heavy vehicle traveling on rails involved in the transport of passengers and or freight on a for-hire, charter, or franchised transit basis.
RAILROAD	A road consisting of two steel rails.
RECREATIONALTRAILER	A non-motorized recreational vehicle that is towed by a motorized vehicle.
RECREATIONVEHICLE	A vehicle whose primary purpose is recreation
REGULATORYSIGN	Any sign used to controll traffic or pedestrians.
ROAD	A collection of links, which may or may not be contiguous, sharing the same street name or highway number.
SIGN	An informational, directional or regulatory sign placed along a Segment. (Contrasted with ControlSign, which is conceptually a type of Signal controlling an Intersection).
SCENARIO	A specific configuration of a simulation.
SEGMENT	A segment is layered on a link or opposing pair of links to provide more detailed geometric information for accurate microscopic simulation and graphical display.
SURVEILLANCE	Any procedure or system used to monitor traffic.
SINGLEUNITTRUCK	A truck whose cab (tractor) and load bed (trailer) comprise a single entity.
SHOULDER	A non-driving lane attached to the right side of a road. It is generally intended as a relatively reliable area to leave the road.
SIGNALINTERVAL	The permissive time interval given to each approach of a fixed time controlled intersection.
SIGNALHARDWARE	Any of the hardware used for traffic signals.
SIGNAL	Any display that employs lights, motion or sound to control traffic or pedestrians.
SIGNALPEDESTRIAN	An intersection control signal used to control pedestrian movement.
TIMINGPLAN	The timing plan for a fixed time controller.
TRAFFICCONTROL	Any signal device used to control traffic.
TRANSIT	Public Transportation
TRUCK	A vehicle use to transport freight.
TWOLANEHIGHWAY	A roadway having a two-lane cross section with one lane for each direction of flow, on which passing maneuvers must be made in the opposing lane.
TWOWAYLEFTTURNLANE	The center lane on a three-lane or multilane highway which is used continuously for vehicles turning left in either direction of flow at midblock locations.
USER	Any driver, passenger or pedestrian who uses a road.
VARIABLEDISPLAY	A type of display hardware which can change in response to changing conditions on the road. An example would be
VEHICLE	changeable message signs. Any powered device use to convey passengers or freight on a road.
WARNINGSIGN	Any sign used to warn motorists or pedestrian of a hazard or impediment to traffid

Attribute Dictionary

This table allows you to look up the attributes (properties) of a class and read its definition. The table is sorted by class name.

Name	Definition
ACTUATEDCONTROLLER_MaximumExtension_qu	For a fully actuated controller, the length of time that a
antity	phase may be held in green in the presence of an opposing
	serviceable call. The maximum extension is the maximum
	duration of "service green" (i.e., the duration of green
	beyond the end of the minimum green or variable initial
	interval, whichever is greater).
ACTUATEDCONTROLLER_MaximumGap_quantity	This is the value from which gap reduction is initiated when
	an opposing call occurs. This value will be equal to or
	greater than the vehicle extension time; it determines the
	time before gap reduction.
ACTUATEDCONTROLLER_MaximumGreen_quanti	In actuated controllers, the longest time for which a green
ty	indication will be displayed in the presence of a call on an
	opposing phase.
ACTUATEDCONTROLLER_Node_number	The node number of the intersection controlled.
ACTUATEDCONTROLLER_Type_code	The controller type, e.g. 170, 2070, etc.
APPROACH_AmberIntervalResponse_quantity	The response of drivers to the onset of the amber indication
	expressed in terms of an acceptable deceleration (fpss).
	This value is obtained from a default table the correlates
	with a driver characteristics value.
APPROACH_Azimuth_quantity	The angle of this intersection approach relative to due
-	north.
APPROACH_UpstreamNode_number	The upstream node number of this approach to an
-	intersection.
CURVE_EndPoint_quantity	The distance on the link from the upstream end to the end
	of the curve.
CURVE_Radius_quantity	The radius of the curve.
CURVE_StartPoint_quantity	The distance on the link from the upstream end to the
	beginning of the curve.
DEPARTURE_DownStreamNode_number	The downstream node number of the departure link.
DETECTOR_Approach_number	The approach this detector is in.
DETECTOR_CarryOverTime_quantity	The amount of time to continue input to the phase after the
	vehicle has left the detection area.
DETECTOR_DelayTime_quantity	The input delay time to a phase while the phase is in red.
DETECTOR_DistanceToStopLine_quantity	The distance between the trailing edge of the detector
	sensing zone and the stop line.
DETECTOR_Length_quantity	The length of the detecting zone from leading edge of the
	sensing zone to the trailing edge of the sensing zone.
DETECTOR_Mode_code	The detector mode.
DETECTOR_Type_code	A code designating the type of detector. See
	DETECTOR_Type_code in TMDD.
DRIVER_Aggressiveness_quantity	A measure of a driver's aggressiveness in regard to
	maneuvering.
DRIVER_CarFollowingFactor_quantity	This value is a sensitivity factor in tenths of a second to
	indicate the headway this driver will allow between his car
	and the car he is following.
DRIVER_Familiarity_number	This is the number of next turn movements that the driver is
	familiar with.
DRIVER_Type_code	This value identifies the driver type and is used to correlate
	driver type parameters.

Name	Definition
EMISSION_AccelerationDeceleration_code	This value correlates to the Vehicle Performance Index for
	the specified speed and will be applied to the emission rate.
EMISSION_Rate_quantity	The emission rate for the specified type at the specified
, ,	speed.
EMISSION_Type_code	This code specifies which table data is used.
EMISSION_VehiclePerformanceIndex_number	This is the Vehicle Performance Index specified in the
	Vehicle object.
EMISSION_VehicleSpeed_quantity	The vehicle speed applicable for the specified vehicle
	performance index.
EVENT_Duration_time	See EVENT_Description_text in TMDD
EVENT_Duration_time	The duration of the event. See
	EVENT_TimelineDuration_quantity in TMDD.
EVENT_Length_quantity	The length of the roadway affected by the event.
EVENT_MeanDuration_time	The mean duration of short-term events.
EVENT_MeanFrequency_number	The mean frequency of short-term events. Specified as
	events per hour.
EVENT_RubberneckFactor_quantity	The reduction in capacity for the affected lanes at the point
	of the event.
EVENT_StartTime_time	The time of onset for the event. See
	EVENT_TimelineStart_date in TMDD.
EVENTINCIDENT_Blockage_code	This code specifies where the blockage occurs. See
	EVENT_LanesBlockedOrClosed_code and
THE PARTY OF THE P	EVENT_LanesShouldersBlocked_code in TMDD. The downstream node number for the link on which the
EVENTINCIDENT_DownstreamNode_number	
EVENTINGUENT Leasting quantity	incident occurred. The location of the upstream end of the incident from the
EVENTINCIDENT_Location_quantity	upstream node. See
	EVENT_LocationCoordinatesAltitude_location,
	EVENT_LocationCoordinatesLatitude_location and
	EVENT_LocationCoordinatesLongitude_location in
	TMDD
EVENTINCIDENT_UpstreamNode_number	The upstream node number for the link on which the
D / D. (Till (CIDDI (I _ Open cum (odc_mume)	incident occurred.
EVENTINCIDENT_WarningSignLocation_quantity	The distance from the upstream node for the location of the
	upstream warning sign for blockage incidents.
FIXEDTIMECONTROLLER_Node_number	The node number of the intersection that is controlled.
FREEWAY_Capacity_quantity	The maximum sustained (15-min) rate of flow at which
- · · · ·	traffic can pass a point or uniform segment of freeway
	under prevailing roadway and traffic conditions. Capacity is
	defined for a single direction of flow, and is expressed in
	vehicle per hour (vph).
FREEWAY_Density_quantity	The number of vehicles occupying a given length of lane or
	roadway averaged over time, usually expressed as vehicles
	per mile or vehicles per mile per lane.
FREEWAY_LevelOfService_code	A qualitative measure describing operational conditions
	within a traffic stream, generally described in terms of such factors as speed and travel time, freedom to maneuver,
	traffic interruptions, comfort and convenience, and safety.
FREEWAY_MaximumServiceFlowRate_quantity	The highest 15-min rate of flow that can be accommodated
FREE WAT _ INIANIHUMSCIVICEFIOWRAGE_qualitity	on a highway facility under ideal conditions while
	maintaining the operating characteristics for a stated level
	of service, expressed as passenger cars per hour per lane.
FREEWAY_Speed_quantity	A rate of motion, in distance per unit of time.
1 Nob Will _opecu_quantity	S = d/t (mph or fps).
FREEWAY_Volume_quantity	The number of persons or vehicles passing a point on a
- 102 IX _ Totalio_quantity	freeway during some time interval, often taken to be 1 hr,
	expressed in vehicles.

Name	Definition
FREEWAYRAMP_DivergeVolume_quantity	The total volume in the traffic stream which will separate.
	For the case of a one-lane, right-side on-ramp, the diverge
	volume is equal to the lane 1 volume immediately upstream
	of the subject ramp.
FREEWAYRAMP_DownstreamFreewaySegmentID	A unique number identifying the downstream freeway
_number	segment.
FREEWAYRAMP_FlowRate_quantity	Vehicles per hour per lane.
FREEWAYRAMP_FractionalOffset_quantity	In a group of dependent metered lanes, the start of the green
	interval for any lane can occur after a variable time
	(fraction of the cycle length) of the green interval for any
	lane in the same dependency group. The offset time is
	equal to the cycle length divided by the number of metered
EDEEWAYDAMD E	lanes in the dependency group.
FREEWAYRAMP_FreewayCapacity_quantity	The capacity of the freeway in vehicles per hour per lane.
FREEWAYRAMP_FreewayLane_number	Denotes the lane of the freeway that feeds lane 1 of the off-
EDEEWAYDAMD E	ramp, if one exists.
FREEWAYRAMP_FreewayVolume_quantity	The total freeway volume. Generally considered at the point
	where it is at the maximum level, i.e., upstream of an off-
EDEEWAYDAMD I and Common and the	ramp and downstream of an on-ramp.
FREEWAYRAMP_LaneOccupancy _quantity	The percentage of time that the ramp meter detector is
FREEWAYRAMP_LevelOfService code	actuated.
FREEWAYRAMP_LevelOlService_code	A qualitative measure describing operational conditions within a traffic stream, generally described in terms of such
	factors as speed and travel time, freedom to maneuver,
	traffic interruptions, comfort and convenience, and safety.
FREEWAYRAMP_MeteringHeadway_number	The time separation (in seconds) between successive green
TREE WATRAMI _Meteringreadway_number	signals in a ramp lane.
FREEWAYRAMP_MeteringType_code	A system in which the entry of vehicles onto a freeway
Tidb Will Riveretcimg type_code	from an on-ramp is controlled by a traffic signal allowing a
	fixed number of vehicles to enter during each cycle.
FREEWAYRAMP_MeterRate_quantity	Number of vehicles allowed to enter a given section of a
	roadway per unit time.
FREEWAYRAMP_MeterStartTime_time	The time for the onset of metering.
FREEWAYRAMP_NumberOfLanes_number	The total number of freeway ramp lanes.
FREEWAYRAMP_OffRampSignLocation _location	The location of the off ramp sign on the freeway.
FREEWAYRAMP_RampID_number	A unique number identifying the ramp. See
	RAMP_IdNumber_number in TMDD.
FREEWAYRAMP_RampType_code	A code to indicate the type of ramp.
FREEWAYRAMP_UpstreamFreewaySegmentID_nu	A unique number identifying the upstream freeway
mber	segment.
FREEWAYWEAVINGAREA_MinimumAverageNon	Average minimum running speed for all non-weaving
WeavingSpeed_quantity	vehicles occupying a given section of highway over some
	time.
FREEWAYWEAVINGAREA_MinimumAverageWea	Average minimum running speed for all weaving vehicles
vingSpeed_quantity	occupying a given section of highway over some time.
FREEWAYWEAVINGAREA_Volume_quantity	The number of persons or vehicles passing a point on a
	lane, roadway, or other trafficway during some time
ELIEL COMMUNICATION	interval, often taken to be 1 hr, expressed in vehicles.
FUELCONSUMPTION_Rate_quantity	The fuel consumption rate for the specified Vehicle
ODADE I	Performance Index.
GRADE_Location_quantity	The distance on the link from the upstream end.
GRADE_Percent_quantity	The percent grade at a point on a link.
GRADE_SightDistance_quantity	The sight distance at a point on a link.
$INCIDENTDETECTION_OffLineAlgorithmType_cod$	This code specifies the type of algorithm to be used for off-
e	line incident detection.

Name	Definition
INCIDENTDETECTION_OffLineEvaluationFrequenc	The evaluation frequency for MOE estimation and point
y_number	processing or evaluation frequency for surveillance
	detectors in seconds.
INCIDENTDETECTION_OffLineParameterValue_qu antity	A parameter value to be used in the detection algorithm.
INCIDENTDETECTION_OffLinePollingFrequency_n umber	The polling frequency of the incident detector in number / second.
INCIDENTDETECTION_OffLineStationID_number	The number of the surveillance station to be used for MOE estimation, point processing and off-line incident detection.
INCIDENTDETECTION_OnLineAlgorithmType_cod e	This code specifies the type of algorithm to be used for on- line incident detection.
INCIDENTDETECTION_OnLineEvaluationFrequenc y_number	The evaluation frequency for incident detection in number of time steps between evaluations.
INCIDENTDETECTION_OnLineParameterValue_quantity	A parameter value to be used in the detection algorithm.
INCIDENTDETECTION_OnLinePollingFrequency_n umber	The polling frequency of the incident detector in number / second.
INCIDENTDETECTION_OnLineStationID_number	The number of the surveillance station to be used for on- line incident detection.
INTERSECTIONSIGNALIZED_AllowableGap_quant	The time gap between successive moving vehicles at which
ity	a greater gap should terminate the green on one phase and transfer right-of-way to another phase.
INTERSECTIONSIGNALIZED_AmberIntervalRespo	The response of drivers to the onset of the amber indication
nse_quantity	is expressed in terms of an acceptable deceleration. The
	deceleration that is required for the vehicle to stop is readily
	calculated, knowing the current position and speed of the vehicle. If deceleration is acceptable the vehicle will stop; otherwise, it will continue through the intersection.
INTERSECTIONSIGNALIZED_ApproachDelay_quantity	Stopped-time delay at a signalized intersection plus time lost because of deceleration to and acceleration from a stop, generally estimated as 1.3 times the stopped time delay.
INTERSECTIONSIGNALIZED_AverageStoppedTim	The total time vehicles are stopped in an intersection approach or
eDelay_quantity	lane group during a specified time interval divided by the volume departing from the approach or lane group during the same time period, in seconds per vehicle.
INTERSECTIONSIGNALIZED_BackgroundCycle_q	The term used to identify the cycle length established by a
uantity	coordination unit and master control in coordinated systems.
INTERSECTIONSIGNALIZED_Call_code	A registration of a demand for right-of-way by traffic at a controller unit. The call to the controller is via detector actuation.
INTERSECTIONSIGNALIZED_ChangeInterval_quantity	The "yellow" plus "all red" intervals that occur between phases of a traffic signal to provide for clearance of the intersection before conflicting movements are released.
INTERSECTIONSIGNALIZED_CycleLength_code	The time required for one complete sequence of signal phases.
INTERSECTIONSIGNALIZED_DetectorSetback_quantity	The time required for one complete sequence of signal phases.
INTERSECTIONSIGNALIZED_DetectorType_code	A device for indicating the presence or passage of vehicles or pedestrians. This general term is usually supplemented
	with a modifier, i.e., loop detector, magnetic detector indicating type.
INTERSECTIONSIGNALIZED_DischargeHeadway_quantity	The mean time gap between vehicles discharging from a standing queue.
INTERSECTIONSIGNALIZED_EffectiveGreen_quantity	The time allocated for a given traffic movement (green plus yellow) at a signalized intersection less the start-up and clearance lost times for the movement.

Name	Definition
INTERSECTIONSIGNALIZED_EffectiveRed_quantit	The time during which a given traffic movement or set of
у	movements is directed to stop; cycle length minus effective green
INTERSECTIONSIGNALIZED_LagPhase_quantity	The lag phase setting designates which phase of a phase
The Robe Frontier Are Ebb_baginase_quantity	pair displays green first, before the other phase. A phase
	pair is defined as adjacent phases in the same ring on the
	same side of the barrier on a standard NEMA phase
	diagram. In a standard NEMA 8 phase configuration
	operating in leading dual lefts on both streets, phases 2, 4, 6
	and 8 are lag phases while phases 1, 3, 5, and 7 are leading
INTERPRETATION OF THE PARTY OF	phases.
INTERSECTIONSIGNALIZED_MaximumSpeedLeft Turn_quantity	Moving vehicles must slow as they approach an intersection
i uni_quantity	if they are to negotiate a turning maneuver, even when unimpeded by other vehicles. The default turning speed for
	negotiating left turns is 22 fps (7 m/s). The maximum
	allowable left turn speed is 44 fps (14 m/s).
INTERSECTIONSIGNALIZED_MaximumSpeedRigh	Moving vehicles must slow as they approach an intersection
tTurn_quantity	if they are to negotiate a turning maneuver, even when
	unimpeded by other vehicles. The default turning speed for
	negotiating right turns is 13 fps (4 m/s). The maximum
INTERGECTIONGICMALIZED B. L. C. D. L.	allowable right turn speed is 26 fps (8 m/s).
INTERSECTIONSIGNALIZED_PedestrianDelay_quantity	The duration of vehicular delay due to pedestrian interaction during a vehicle green phase.
INTERSECTIONSIGNALIZED_ProbabilityLeftTurnJ	A left turn jumper is a vehicle that is first in queue when a
ump_quantity	signal changes to green and executes a left turn maneuver
	before the oncoming traffic moves.
INTERSECTIONSIGNALIZED_StartingDelay_quanti	A delay experienced in initiating the movement of queued
ty	traffic from a stop to a maximum flow rate through a
WARD OF CHANGE OF THE PARTY OF	signalized intersection.
INTERSECTIONSIGNALIZED_StartupLostTime_qu antity	The delay experienced by the first vehicle in queue when
INTERSECTIONSIGNALIZED_StopDelay_quantity	responding to a phase change from red to green. For each turn movement, the total time that vehicles of the
THE EXIST CHARGE AND CONTROL OF THE	specified turn movement were stopped on the link. Stop
	time is defined as any time that a vehicle is stopped on a
	link including buses in dwell.
INTERSECTIONUNSIGNALIZEDCONTROLLED_	A vehicle at a stop line facing a sign cannot discharge until
AcceptanceGap_quantity	an acceptable gap is available in the cross-street traffic.
	The acceptable gap depends on the type of sign, driver
	characteristic and the total number of lanes to be crossed. Likewise for a vehicle turning left or right.
INTERSECTIONUNSIGNALIZEDCONTROLLED_	The minimum time interval between vehicles in a major traffic
CriticalGap_quantity	stream that permits side-street vehicle at a stop-controlled
	approach to enter the intersection under prevailing traffic and
INTERSECTIONUNSIGNALIZEDCONTROLLED_	roadway conditions, in seconds. The acceptable gap for Left-Turns.
LeftTurnAcceptableGap_quantity	The acceptance gap for Deterrains.
INTERSECTIONUNSIGNALIZEDCONTROLLED_	The capacity of a specific movement at a stop-controlled
MovementCapacity_quantity	intersection approach, assuming that the movement has exclusive
INTERSECTIONUNSICNALIZEDOONTROLLED	use of a separate lane, in passenger cars per hour.
INTERSECTIONUNSIGNALIZEDCONTROLLED_ NewFSAcceptanceGap_quantity	The acceptable gap to cross the far-side of a cross street.
INTERSECTIONUNSIGNALIZEDCONTROLLED_	The acceptable gap to cross a near-side cross street.
NewNSAcceptanceGap_quantity	2.1.0 allegand gap to oross a near side oross street.
INTERSECTIONUNSIGNALIZEDCONTROLLED_	The acceptable gap for Right Turn on red or at signs.
RightTurnOnRedAcceptableGap_quantity	
LANE_AllowableMovements_code	The movements that are allowed through the intersection
	from this lane.

Name	Definition
LANE_AntireferenceEndLocation_quantity	Distance along this Lane's Segment from the reference end
	of the Segment to the antireference end of the Lane.
LANE_Channelization_code	Traffic restrictions for the lane.
LANE_DetectorLength_quantity	The effective loop length in feet
LANE_DetectorLocation_quantity	The location of the detector from the upstream end of the
	lane in feet.
LANE_DetectorType_code	A device for indicating the presence or passage of vehicles
	or pedestrians. This general term is usually supplemented
	with a modifier, i.e., loop detector, magnetic detector
	indicating type.
LANE_IncidentCode_code	The incident code specifying the effect on the lane.
LANE_Length_quanity	The travel distance from the upstream end to the
	downstream end of a Lane. (Less than or equal to the
	length of the Segment to which the Lane belongs.)
LANE_Type_code	Lane type.
LANE_Width_quantity	The width of the lane.
LINK_AverageDelayTime_quantity	For each turn movement, the average time that vehicles
	were delayed on the link. Calculated as the delay time for
	the turn movement divided by vehicle trips for the turn
I DIV. A	movement.
LINK_AverageSpeed_quantity	For each turn movement, the average speed of vehicles on a
	link that have completely traversed the link. Calculated as vehicle miles divided by the total time.
LINK_Capacity_quantity	See LINK_Capacity_quantity in the TMDD: "The Link
LINK_Capacity_quantity	maximum capacity in vehicles per hour."
LINK_Delay_quantity	See LINK_Delay_quantity in the TMDD: "Calculated
Envic_Domy_quantity	delay for vehicles driving along a particular Link. this is
	additional time it will take above that recorded during free
	flow conditions to travel from one end of the link to the
	other."
LINK_Density_quantity	See LINK_Density_quantity in the TMDD: "Vehicle
	concentration per kilometer (in vehicles per kilometer) of
	the Link."
LINK_DesignSpeed_quantity	See LINK_DesignSpeed_quantity in the TMDD: "The
TINK D' d'	Link design speed in kilometers per hour."
LINK_Direction_code	See LINK_Direction_code in the TMDD: "The direction of
LINIV Dictance To Ston Line quantity	the Link traffic flow, e.g E,W,N,S." The distance between the stop line and the curb line.
LINK_DistanceToStopLine_quantity LINK_FreeFlowSpeedPercentage_quantity	This percentage is correlated with the driver characteristics
LINK_FleerlowSpeedrefeelitage_quantity	and is multiplied with the Mean Free Flow Speed for the
	link to obtain a Free Flow Speed for drivers of the
	specified characteristics for this link.
LINK_GroupID_number	When a link is part of an aggregation such as an
	interchange or a corridor, this number can be used to
	identify members of a group.
LINK_GroupSequence_number	When a link is part of an aggregation such as an
	interchange or a corridor, this number can be used to
	sequence members of a group.
LINK_HeightRestriction_quanity	See LINK_HeightRestriction_quantity in the TMDD:
	"Minimum vertical clearance on a Link in centimeters."
LINK_IdNumber_number	See LINK_IdNumber_number in the TMDD: "An unique
	numerical designation for the Link."
LINK_LaneAlignmentdownstream_number	The lane number of the downstream through node that
I PATE I AL'	aligns with downstream alignment lane of this link.
LINK_LaneAlignmentupstream_number	The lane number of the upstream node that aligns with the
And the second s	upstream alignment lane of this link.

derWidth_quantity in the TMDD: shoulder of the Link (in the downstream node that can receive that the left turn pocket. See thaneNumber_quantity in TMDD. turn pocket (if any). See thantity in the TMDD: antity in the TMDD: triction_quantity in the TMDD: tength allowable on a Link in triction_soprational conditions and their perception by motorists defined in the Highway Capacity pe_code in the TMDD: "Type of the Link." Sequantity in the TMDD: "The lowest sequantity in the TMDD: "The lowest
shoulder of the Link (in the downstream node that can receive in the left turn pocket. See thaneNumber_quantity in TMDD. turn pocket (if any). See thaneth quantity in TMDD. antity in the TMDD: "The length of triction_quantity in the TMDD: ength allowable on a Link in ervice_code in the TMDD: "A escribing operational conditions and their perception by motorists defined in the Highway Capacity pe_code in the TMDD: "Type of the Link." equantity in the TMDD: "The lowest
shoulder of the Link (in the downstream node that can receive in the left turn pocket. See thaneNumber_quantity in TMDD. turn pocket (if any). See thanethan the TMDD: "The length of antity in the TMDD: "The length of triction_quantity in the TMDD: tength allowable on a Link in trice_code in the TMDD: "A tescribing operational conditions and their perception by motorists defined in the Highway Capacity pe_code in the TMDD: "Type of the Link." the quantity in the TMDD: "The lowest the trice of the trice of the trice of the Link." the downstream node that can receive the downstream node that can receive the downstream node that can receive the left turn pocket. See
nthe left turn pocket. See htLaneNumber_quantity in TMDD. http://doi.org/10.1000/10.000000000000000000000000000
n the left turn pocket. See ttLaneNumber_quantity in TMDD. turn pocket (if any). See ttLength_quantity in TMDD. antity in the TMDD: "The length of triction_quantity in the TMDD: ength allowable on a Link in rvice_code in the TMDD: "A escribing operational conditions and their perception by motorists lefined in the Highway Capacity pe_code in the TMDD: "Type of the Link." equantity in the TMDD: "The lowest
n the left turn pocket. See ttLaneNumber_quantity in TMDD. turn pocket (if any). See ttLength_quantity in TMDD. antity in the TMDD: "The length of triction_quantity in the TMDD: ength allowable on a Link in rvice_code in the TMDD: "A escribing operational conditions and their perception by motorists lefined in the Highway Capacity pe_code in the TMDD: "Type of the Link." equantity in the TMDD: "The lowest
ttLaneNumber_quantity in TMDD. turn pocket (if any). See ttLength_quantity in TMDD. antity in the TMDD: "The length of triction_quantity in the TMDD: tength allowable on a Link in triction_code in the TMDD: "A tescribing operational conditions and their perception by motorists tefined in the Highway Capacity pe_code in the TMDD: "Type of the Link." telegraphic tricking the tricking of the Link." the tricking operational tricking the tricking operational tricking the tricking operational tricking operational tricking the tricking operational tricking tricking the tricking operational tricking tricki
ttLaneNumber_quantity in TMDD. turn pocket (if any). See ttLength_quantity in TMDD. antity in the TMDD: "The length of triction_quantity in the TMDD: tength allowable on a Link in triction_code in the TMDD: "A tescribing operational conditions and their perception by motorists tefined in the Highway Capacity pe_code in the TMDD: "Type of the Link." telegraphic tricking the tricking of the Link." the tricking operational tricking the tricking operational tricking the tricking operational tricking operational tricking the tricking operational tricking tricking the tricking operational tricking tricki
turn pocket (if any). See tLength_quantity in TMDD. antity in the TMDD: "The length of triction_quantity in the TMDD: ength allowable on a Link in rvice_code in the TMDD: "A escribing operational conditions and their perception by motorists defined in the Highway Capacity pe_code in the TMDD: "Type of the Link." e_quantity in the TMDD: "The lowest
antity in the TMDD: "The length of striction_quantity in the TMDD: ength allowable on a Link in ervice_code in the TMDD: "A escribing operational conditions and their perception by motorists defined in the Highway Capacity epe_code in the TMDD: "Type of the Link."
antity in the TMDD: "The length of striction_quantity in the TMDD: ength allowable on a Link in ervice_code in the TMDD: "A escribing operational conditions and their perception by motorists defined in the Highway Capacity pe_code in the TMDD: "Type of the Link."
triction_quantity in the TMDD: ength allowable on a Link in ervice_code in the TMDD: "A escribing operational conditions and their perception by motorists defined in the Highway Capacity pe_code in the TMDD: "Type of the Link." e_quantity in the TMDD: "The lowest
ength allowable on a Link in ervice_code in the TMDD: "A escribing operational conditions and their perception by motorists lefined in the Highway Capacity pe_code in the TMDD: "Type of the Link." e_quantity in the TMDD: "The lowest
ength allowable on a Link in ervice_code in the TMDD: "A escribing operational conditions and their perception by motorists lefined in the Highway Capacity pe_code in the TMDD: "Type of the Link." e_quantity in the TMDD: "The lowest
ervice_code in the TMDD: "A excribing operational conditions and their perception by motorists defined in the Highway Capacity pe_code in the TMDD: "Type of the Link." s_quantity in the TMDD: "The lowest
and their perception by motorists lefined in the Highway Capacity pe_code in the TMDD: "Type of the Link." s_quantity in the TMDD: "The lowest
and their perception by motorists lefined in the Highway Capacity pe_code in the TMDD: "Type of the Link." s_quantity in the TMDD: "The lowest
and their perception by motorists lefined in the Highway Capacity pe_code in the TMDD: "Type of the Link." s_quantity in the TMDD: "The lowest
pe_code in the TMDD: "Type of the Link." s_quantity in the TMDD: "The lowest
pe_code in the TMDD: "Type of the Link." s_quantity in the TMDD: "The lowest
the Link." _quantity in the TMDD: "The lowest
the Link." _quantity in the TMDD: "The lowest
a_quantity in the TMDD: "The lowest
y point in the Link."
Open_quantity in the TMDD: "The
point of lanes currently open in the
y_percent in the TMDD: "Percent
for the Link."
he upstream node, downstream, that
affic.
eavement.
Type_code in the TMDD: "The type
h the pavement is constructed (e.g.
rge for each queued vehicle. A
each driver characteristic is assigned.
he downstream node that can receive
ne downsheam node that can receive
llderWidth_quantity in the TMDD:
it shoulder for the Link in
it shoulder for the Link in
he downstream node that can receive
no do wnstream node that can receive
n the right turn pocket. See
ketLane_quantity in TMDD.
t turn pocket (if any). See
ketLength_quantity in TMDD.
of a driver at the stop line to see
antity in the TMDD: "The average
in Kilometers per hour."
it_quantity in the TMDD: "Speed
in Kilometers per hour."
I Walk a si Tit I i I i I i ki tiki i i i i i

Name	Definition
LINK_StartUpLostTime_quantity	The start-up lost time for the first vehicle in queue when the
	signal turns to green. A different value for each driver
	characteristic is assigned.
LINK_Status_code	See LINK_Status_code in the TMDD: "The Link Status."
LINK_ThroughDownstreamNode_number	The node number of the downstream node that can receive
I DW C I G	through traffic.
LINK_TruckSpeedLimit_quantity	See LINK_TruckSpeedLimit_quantity in the TMDD:
LINK_Type_code	"Speed limit for trucks in kilometers per hour." See LINK_Type_code in the TMDD: "The designation of
LINK_Type_code	the Link type. (Fwy., Art., Psu., Sur., Ded., Rail, Bus, Air,
	Ferry, other modes)."
LINK_UpstreamNode_number	The number of the upstream node.
LINK_Volume_quantity	See LINK_Volume_quantity in the TMDD: "Projected or
21. (1. volumo_quainty	measured hourly volume for the Link expressed in vehicles
	per hour."
LINK_WeightRestriction_quantity	See LINK_WeightRestriction_quantity in the TMDD:
	"Maximum Vehicle Weight allowable on a Link in
	kilograms."
MANEUVER_Advantage_quantity	Advantage threshold for discretionary maneuver.
MANEUVER_CollisionAvoidance_code	Parameter for collision avoidance time period. Used in gap
	acceptance algorithm.
MANEUVER_FollowerVehicleDecelerationRate_quan	Deceleration rate of follower vehicle.
tity	
MANEUVER_LeadVehicleDecelerationRate_quantity	Deceleration rate of the lead vehicle.
MANEUVER_LeftTurnAcceptableGap_quantity	The acceptable gap in oncoming traffic for a driver
	attempting a left turn.
MANEUVER_LeftTurnJumpProbability_quantity	The probability that the first vehicle in queue will execute a
	left-turn when the signal changes to green.
MANEUVER_LeftTurnLaggerTurnProbability_quantit	The probability that a driver will execute a left-turn across
у	opposing traffic during a NO GO interval.
MANEUVER_MaximumHeadway_quantity	The headway above which no driver will attempt the
MANEUVER_MaximumLeftTurnSpeed_quantity	The maximum speed for a left turn.
MANEUVER_MaximumRightTurnSpeed_quantity	The maximum speed for a right turn.
MANEUVER_MeanDistance_quantity	Mean longitudinal distance over which drivers decide to
WWW.DO VER_Wound Islance_quantity	perform on lane change.
MANEUVER_MinimumDeceleration_quantity	The minimum deceleration at the beginning of a
	discretionary maneuver. Used in the computation of
	acceptable risk.
MANEUVER_MinimumHeadway_quantity	Headway below which all drivers will attempt the
	maneuver.
MANEUVER_Multiplier_quantity	Multiplier for desire to complete discretionary maneuver.
MANEUVER_RightTurnOnRedAcceptableGap_quant	The acceptable fag in oncoming traffic for a driver
ity	attempting a right-turn on red of at a sign.
MANEUVER_SafetyFactor_quantity	The degree of caution used by the driver.
MANEUVER_SpillbackProbability_quantity	The probability that a vehicle about to discharge will join a
MANIELIVED TimeT-Complete	spillback.
MANEUVER_TimeToComplete_quantity	Time to complete the maneuver.
MANEUVER_Type_code	The code identifying the type of maneuver to be performed. Urgency of a driver to initiate a discretionary maneuver.
MANEUVER_UrgencyThreshold_quantity	Based on the driver's aggressiveness, the remaining
	distance available and the complexity of the maneuver.
MANEUVER_YieldingPercentage_quantity	Percentage of drivers desiring to yield the right-of-way to
With 120 V Dr. 1 foldings electriage_qualitity	maneuvering vehicles.
MOE_Algorithm_Type_code	The code of the MOE estimation algorithm to be applied.
o.z_rxigorium_r_r_pe_code	The code of the 1410D communon digorithm to be applied.

Name	Definition
MOE_Arterial_AverageControlDelay_quantity	Control delay includes initial deceleration delay, queue
	move-up time, stopped delay, and final acceleration delay.
	Control
	delay may also be referred to as signal delay.
MOE_Arterial_AverageRunningTime_quantity	The average time vehicles are in motion while traversing a
	highway segment of given length, excluding stopped-time
	delay, in seconds per vehicle or minutes per vehicle.
MOE_Arterial_AverageTravelSpeed_code	The average speed of a traffic stream computed as the
	length of a highway segment divided by the average travel
	time of vehicles traversing the segment, in miles per hour.
MOE_Arterial_LevelOfService_code	A qualitative measure describing operational conditions
	within a traffic stream, generally described in terms of such
	factors as speed and travel time, freedom to maneuver,
	traffic interruptions, comfort and convenience, and safety.
MOE_Freeway_Capacity_quantity	The maximum sustained (15-min) rate of flow at which
	traffic can pass a point or uniform segment of freeway
	under prevailing roadway and traffic conditions. Capacity is
	defined for a single direction of flow, and is expressed in
	vehicle per hour (vph).
MOE_Freeway_Density_quantity	The number of vehicles occupying a given length of lane or
_ ,_ ,_ ,_ ,	roadway averaged over time, usually expressed as vehicles
	per mile or vehicles per mile per lane.
MOE_Freeway_LevelOfService_code	A qualitative measure describing operational conditions
	within a traffic stream, generally described in terms of such
	factors as speed and travel time, freedom to maneuver,
	traffic interruptions, comfort and convenience, and safety.
MOE_Freeway_MaximumServiceFlowRate_quantity	The highest 15-min rate of flow that can be accommodated
	on a highway facility under ideal conditions while
	maintaining the operating characteristics for a stated level
	of service, expressed as passenger cars per hour per lane.
MOE_Freeway_Speed_quantity	A rate of motion, in distance per unit of time.
Moz_rrochaj_opool_quantry	S = d/t (mph or fps).
MOE_Freeway_Volume_quantity	The number of persons or vehicles passing a point on a
Mod_rooms_quantity	lane, roadway, or other trafficway during some time
	interval, often taken to be 1 hr, expressed in vehicles.
MOE_FreewayRamp_DivergeVolume_quantity	The total volume in the traffic stream which will separate.
obroomay.tamp_brvo.govo.amo_qaamiiy	For the case of a one-lane, right-side on-ramp, the diverge
	volume is equal to the lane 1 volume immediately upstream
	of the subject ramp.
MOE_FreewayRamp_FreewayVolume_quantity	The total freeway volume. Generally considered at the point
110B_1100way1amp_1100way votame_quantity	where it is at the maximum level, i.e., upstream of an off-
	ramp and downstream of an on-ramp.
MOE_FreewayRamp_LevelOfService_code	A qualitative measure describing operational conditions
MOL_NeewayRamp_EcvelO13ctvice_code	within a traffic stream, generally described in terms of such
	factors as speed and travel time, freedom to maneuver,
MOE E	traffic interruptions, comfort and convenience, and safety.
MOE_FreewayRamp_MergeVolume_quantity	The total volume in the traffic streams which will join. For
	the case of a one-lane, right-side on-ramp, the merge
	volume is the sum of the lane 1 volume plus the ramp
MOE E	volume.
MOE_FreewayRamp_Volume_quantity	The number of persons or vehicles passing a point on a
	lane, roadway, or other trafficway during some time
	interval, often taken to be 1 hr, expressed in vehicles.
MOE_FreewayWeavingArea_LevelOfService_code	A qualitative measure describing operational conditions
	within a traffic stream, generally described in terms of such
	factors as speed and travel time, freedom to maneuver,
	traffic interruptions, comfort and convenience, and safety.

Name	Definition
MOE_FreewayWeavingArea_MinimumAverageNonW	Average minimum running speed for all non-weaving
eavingSpeed_quantity	vehicles occupying a given section of highway over some time.
MOE_FreewayWeavingArea_MinimumAverageWeavingSpeed_quantity	Average minimum running speed for all weaving vehicles occupying a given section of highway over some time.
MOE_FreewayWeavingArea_Volume_quantity	The number of persons or vehicles passing a point on a lane, roadway, or other trafficway during some time
MOE_IntersectionSignalized_ApproachCapacity_quantity	interval, often taken to be 1 hr, expressed in vehicles. The maximum rate of flow (for the subject approach) which may pass through the intersection under prevailing traffic, roadway and signalization conditions.
MOE_IntersectionSignalized_ApproachVolume_quant ity	The number vehicles which may pass through the intersection under prevailing traffic, roadway and signalization conditions during some time interval, often taken to be 1 hr, expressed in vehicles.
MOE_IntersectionSignalized_CriticalVCRatio_quantit y	A v/c ratio for the intersection as a whole, considering only the lane groups or approaches that have the highest flow ration, v/s, for a given signal phase.
MOE_IntersectionSignalized_FlowRatio_quantity	The ratio of the actual flow rate for the approach or lane group to the saturation flow rate.
MOE_IntersectionSignalized_LevelOfService_code	A qualitative measure describing operational conditions within a traffic stream, generally described in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.
MOE_IntersectionSignalized_SaturationFlowRate_quantity	The maximum rate of flow that can pass through a given intersection approach or lane group under prevailing traffic and roadway conditions, assuming that the approach or lane group had 100 percent of real time available as effective green time.
MOE_IntersectionUnsignalizedControlled_AverageDe lay_quantity	The total additional travel time experienced by drivers, passengers, or pedestrians as a result of control measures and interaction with other users of the facility divided by the volume departing from the corresponding cross section of the facility.
MOE_IntersectionUnsignalizedControlled_Conflicting Volume_quantity	The volume of traffic that conflicts with a specific movement at an unsignalized intersection.
MOE_IntersectionUnsignalizedControlled_QueueLeng th_quantity	(1) Number of vehicles stopped in a lane behind the stopline at a traffic signal. (2) Number of vehicles that are stopped or moving in a line where the movement of each vehicle is constrained by that of the lead vehicle.
MOE_IntersectionUnsignalizedControlled_Volume_qu antity	The number of persons or vehicles passing a point on a lane, roadway, or other trafficway during some time interval, often taken to be 1 hr, expressed in vehicles.
MOE_MultilaneHighway_AverageTravelSpeed_quantity	The average speed of a traffic stream computed as the length of a highway segment divided by the average travel time of vehicles traversing the segment, in miles per hour.
MOE_MultilaneHighway_Density_quantity	The number of vehicles occupying a given length of lane or roadway averaged over time, usually expressed as vehicles per mile or vehicles per mile per lane.
MOE_MultilaneHighway_FreeFlowSpeed_quantity	(1) The theoretical speed of traffic when density is zero, that is, when no vehicles are present; (2) the average speed of vehicles over an arterial segment not close to signalized intersections under conditions of low volume.
MOE_MultilaneHighway_LevelOfService_code	A qualitative measure describing operational conditions within a traffic stream, generally described in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.

Name	Definition
MOE_MultilaneHighway_ServiceFlowRate_quantity	The maximum hourly rate at which persons or vehicles can
MOD_Managemay_oot root to wrate_quantity	be reasonably expected to traverse a point of a lane or
	roadway during a given time period (usually 15 min) under
	prevailing roadway, traffic, and control conditions while
	maintaining a designated level of service, expressed as
	vehicles per hour or vehicles per hour per lane.
MOE_MultilaneHighway_Volume_quantity	The number of persons or vehicles passing a point on a
WOE_Multilaneringhway_volume_quantity	lane, roadway, or other trafficway during some time
	interval, often taken to be 1 hr, expressed in vehicles.
MOE_Pedestrian_Density_quantity	The average number of pedestrians per unit of area within a
	walkway or queuing area, expressed as pedestrians per
	square foot.
MOE_Pedestrian_FlowRate_quantity	The number of pedestrians passing a point per unit time,
	expressed as pedestrians per 15 minutes or pedestrians per
	minute; "point" refers to a perpendicular line of sight
	across the width of a walkway.
MOE_Pedestrian_LevelOfService_code	Convenience factors such as the ability to select walking
	speeds, bypass slower pedestrians, avoid conflicts with
	others and degrees of crowding in queuing areas, such as
	sidewalk corners, transit platforms, and other waiting areas.
MOE_Pedestrian_Space_quantity	The average area provided for each pedestrian in a walkway
MOE_redestrian_Space_quantity	
	or queuing area, expressed in terms of square feet per
	pedestrian; this is the inverse of density, but is a more
	practical unit for the analysis of pedestrian facilities.
MOE_Pedestrian_Speed_quantity	The average pedestrian walking speed, generally expressed
	in units of feet per second.
MOE_Pedestrian_UnitWidthFlow_quantity	The average flow of pedestrians per unit of effective
	walkway width, expressed as pedestrians per minute per
	foot.
MOE_Road_AverageTravelTime_quantity	The average time spent by vehicles traversing a road segment of
	given length, including all stopped-time delay, in seconds per
was the same of th	vehicle or minutes per vehicle.
MOE_Road_LevelOfService_code	A qualitative measure describing operational conditions
	within a traffic stream, generally described in terms of such
	factors as speed and travel time, freedom to maneuver,
	traffic interruptions, comfort and convenience, and safety.
MOE_Road_Volume_quantity	The number of persons or vehicles passing a point on a
	lane, roadway, or other trafficway during some time
	interval, often taken to be 1 hr, expressed in vehicles.
MOE_Transit_LoadFactor_quantity	The ratio of total passengers carried to the number of seats
	during a specified time period.
MOE_Transit_PersonCapacity_quantity	The maximum number of persons that can be carried past a
MOD_Transit_reisoneapaony_quaintry	given location during a given time period under specified
	operating conditions without unreasonable delay, hazard, or
	restriction. Usually measured in terms of persons per hour.
MOE_Transit_PersonLevelOfService_code	The quality of service offered the passenger within a transit
MIOE_Transit_FersonLevelO15etv1ce_code	
	vehicle, as
	determined by the available space per passenger.
MOE_Transit_ProductiveCapacity_quantity	A measure of efficiency or performance. The product of
	passenger capacity
	along a transit line and speed.
MOE_TwoLaneHighway_AverageTravelSpeed_quanti	The average speed of a traffic stream computed as the
ty	length of a highway segment divided by the average travel
ty	
ty	time of vehicles traversing the segment in both directions,
	The average speed of a traffic stream computed as the

Name	Definition
MOE_TwoLaneHighway_Capacity_quantity	The maximum rate of flow at which persons or vehicles can
	be reasonably expected to traverse a point or uniform
	segment of a lane or roadway during a specified time period
	under prevailing roadway, traffic, and control conditions,
	usually expressed as vehicles per hour or persons per hour.
MOE_TwoLaneHighway_CapacityUtilization_quantity	The ratio (v/c ratio) of the demand flow rate to the capacity of the facility.
MOE_TwoLaneHighway_DemandFlowRate_quantity	The traffic volume expected to desire service past a point or
	segment of the highway system at some future time, or the
	traffic currently arriving or desiring service past such a
	point, usually expressed as vehicles per hour.
MOE_TwoLaneHighway_PercentTimeDelay_quantity	The average percent of time that all vehicles are delayed
	while traveling in platoons due to the inability to pass.
NETWORK_City_text	The name of the city where a Network is located.
NETWORK_County_text	The name of the county where a Network is located.
NETWORK_Description_text	A textual description of a Network. This attribute can
	contain whatever notes about the model the modeler
	chooses to make.
NETWORK_Name_text	A label for a traffic network. (Are there any constraints
	about uniqueness of the name? How could such a
	constraint be enforced?)
NETWORK_State_quantity	A 'snapshot' of a network.
NODE_IdNumber_number	See NODE_IdNumber_number in the TMDD: "An unique
	identification number for Node."
NODE_Latitude_location	See NODE_Latitude_location in the TMDD: "Latitude of
NORELL	Node."
NODE_Longitude_location	See NODE_Longitude_location in the TMDD: "Longitude of Node in microdegrees."
NODE NLista	See NODE_NumLinks_quantity in the TMDD: "Number
NODE_NumLinks_quantity	of Links at this Node."
NODE_Status_code	See NODE_Status_code in the TMDD: "NODE traffic
NODE_Status_code	status or condition."
NODE_Type_code	The code to identify the type of node.
NODE_XCoordinate_quantity	The X Coordinate of the node.
NODE_YCoordinate_quantity	The Y Coordinate of the node.
ODPAIR_DestinationNode_number	The destination node number of the ODPair.
ODPAIR_ID_number	A unique number identifying an Origin-Destination pair.
ODPAIR_OriginNode_number	The orgin node number.
ODPAIR_Percentage_quantity	The percentage of vehicles entering through the origin
	node.
ODPAIR_Volume_quantity	Volume traveling from the origin node to the destination
	node.
PARKINGZONE_ExpectedNumManeuvers_number	The expected number of parking maneuvers for a specified
- •	time period.
PARKINGZONE_Length_quantity	The length of the parking zone
PARKINGZONE_Location_quantity	The distance from the downstream stop line to the front of
-	the parking zone.
PARKINGZONE_MeanDurationOfManeuvers_quantit y	Mean duration of parking maneuver.
PAVEMENTMATERIAL_Condition_code	The condition of the pavement.
PAVEMENT MATERIAL Friction Coefficient quantit	The friction coefficient is used in the computation of
PAVEMENTMATERIAL_FrictionCoefficient_quantit y	The friction coefficient is used in the computation of maximum speed on a curve.
у	
	maximum speed on a curve.

Name	Definition
PEDESTRIAN_ArrivalHeadway_quantity	The arrival headway for pedestirans actuating the push
	button.
PEDESTRIAN_ConstantDemandLength_quantity	The length of the pedestrian constant demand period.
PEDESTRIAN_ConstantDemandStart_quantity	The start time from the beginning of the simulation when
	pedestrian demand is continuous.
PEDESTRIAN_DeterministicStart_quantity	Elapsed time from start of simulation to beginning of
,	deterministic arrivals.
PEDESTRIAN_Intensity_quantity	The number of pedestrians per hour.
PHASE_ConditionalService_code	This code specifies whether the phase can service a left turn
	twice in the same cycle.
PHASE_DualEntry_code	This code specifies whether dual entry is allowed.
PHASE_ForceOff_quantity	The point in the phase were the controller must terminate
	the phase to service another phase.
PHASE_GapReduction_code	The code identifying the method for reducing the gap
	between vehicles from the orginal value to a lesser value
	over a specified amount of time.
PHASE_GreenEnd_quantity	The end time for the green part of the phase.
PHASE_GreenStart_quantity	The start time for the green part of the phase.
PHASE_Lag_code	This code designates which phase of a phase pair displays
	green first.
PHASE_LagPhaseHold_code	This code designates whether a hold can be placed on a
	phase to prevent the phase from terminating before the
	force-off point.
PHASE_MaximumGap_quantity	The gap at the baginning of the reduction period.
PHASE_MaximumGreenLength_quantity	The maximum time that a phase is allowed to display green
	after receipt of a vehicle call on a conflicting phase.
PHASE_MaximumInitialInterval_quantity	The maximum green time allowed for the variable initial
DILLOR M. C. L. L. L. L. D. W. L.	interval timing.
PHASE_MaximumVehicleRecall_code	This code specifies whether the controller will service
DUACE Minimus Conditional Consistence	maximum green when there is no demand.
PHASE_MinimumConditionalServiceTime_quantity	The minimum time that must be available to provide the
	conditional service phase when a call is issued for the
PHASE_MinimumGap_quantity	phase. The minimum acceptable vehicle gap.
PHASE_MinimumGreenLength_quantity	The shortest green time of the phase. If a time setting
117A3L_WilliamOrecinEengur_quantity	control is designated as minimum green, the green time
	shall not be less than that setting. For a fully-actuated
	controller, the first timed portion of the green interval. It is
	set considering the number of waiting vehicles between the
	approach detector and stopline.
PHASE_MinimumInitialInterval_quantity	Once an actuated phase is initiated, it must be in effect for
	some minimum initial interval regardless of competing
	CALLs for other phases. At the end of the minimum initial
	interval, the phase may be terminated if no detector
	actuations are registered for the current phase and a CALL
	is received for a subsequent phase. Otherwise, the current
	phase is extended until its Force-off Point is reached.
PHASE_MinimumVehicleRecall_code	This code specifies whether the minimum initial interval is
DILACE Manda and American	recalled when there is no demand.
PHASE_Number_number	The phase number
PHASE_Overlap_code	This code designates whether this phase is one of phase pair
DUACE DamingingEndTime anatis:	defining an overlap.
PHASE_PermissiveEndTime_quantity	During a permissive period, calls may be answered for
	phases other than the sync phases. Each permissive period has a Begin and End time.
	I nas a Degin and End time.

Name	Definition
PHASE_PermissiveStartTime_quantity	During a permissive period, calls may be answered for
	phases other than the sync phases. Each permissive period
	has a Begin and End time.
PHASE_RedEnd_quantity	The end time for the red part of the phase.
PHASE_RedLock_code	When red lock is active the controller begins accumulating
	vehicle actuation for the phase to be used in the calculation
	of variable initial timing during only the red portion of the
	phase.
PHASE_RedRevertTime_quantity	The minimum time that red must be displayed after a
	yellow.
PHASE_RedStart_quantity	The start time of the red part of the phase.
PHASE_ReductionTime_quantity	The time over which the initial extension (gap) time will be
	reduced to a lesser value.
PHASE_RestInRed_code	This code designates if the controller is allowed to rest in
	red when there is no demand.
PHASE_RightTurnOnRed_code	Whether a vehicle desiring to turn right at an intersection
	may do so or not when the light is red. See
	PHASE_RightTurnControlType_code in TMDD.
PHASE_SimultaneousGapOut_code	This code specifies whether both rings in a dual ring
	controller must cross the barrier at the same time.
PHASE_TimeBeforeReduction_quantity	The time from the beginning of the approach phase green
- ~ · · · · · · · · · · · · · · · · · ·	until the extension (gap) time starts to be reduced (gap
	reduction) to some lesser value.
PHASE_TotalLength_quantity	The total length of the phase.
PHASE_VehicleExtensionTime_quantity	The time needed for a vehicle to traverse the distance from
	the detector to the stop line.
PHASE_WalkClearanceLength_quantity	The time it takes for a pedestrian to travel the distance from
	curb line to curb line.
PHASE_WalkLength_quantity	A traffic phase allocated to pedestrian traffic which may
_	provide a right-of-way indication either concurrently with
	one or more vehicular phases, or to the exclusion of all
	vehicular phases.
PHASE_YellowEnd_quantity	The end time for the yellow part of the phase.
PHASE_YellowLock_code	If this memory lock toggle is "on" vehicle actuation which
	occur during the yellow and red display of the signal phase
	are accumulated and remembered in the controller and used
	in the variable initial calculation and/or to call the phase for
	service.
PHASE_YellowStart_quantity	The start time of the yellow part of the phase.
RCTRL_InitializationPretimedSignalTransistion_code	Timing plan transition codes.
RCTRL_InitializationRandomSeed_quantity	Random number seed
RCTRL_Initialization_time	Maximum initialization time prior to simulation.
RCTRL_TimeIntervalDuration_time	Duration of the time interval.
RCTRL_TimeIntervalID_number	Time Interval Number
RCTRL_TimePeriodDuration_time	Duration of the time period.
RCTRL_TimePeriodID_number	Time Period Number
SCENARIO_AgencyName_text	The name of the agency creating this scenario.
SCENARIO_CreationDate_date	The scenario creation date.
SCENARIO_SimulationID_number	The ID number of the simulation.
SCENARIO_UserName_text	The name of the user creating this scenario.
SIGNALINTERVAL_ControlCode_code	The control code for a signal interval for an approach to an
SIGNALIA LEKAME_COMOCOGE_COGE	intersection.
SIGNALINTEDVAL Duration quantity	· · · · · · · · · · · · · · · · · · ·
SIGNALINTERVAL_Duration_quantity	The duration of a fixed time controller signal interval
TIMINGPLAN_ConditionalService_code	This code determines is a left turn phase can be serviced
	twice during the controllers background cycle length if the
	time remaining in the cycle is greater than a user specified
	time.

Name	Definition
TIMINGPLAN_CoordinationLength_quantity	The time during phase 2 green before T0 that is allowed for
	system coordination.
TIMINGPLAN_DualEntryOperation_code	In dual ring operation, this code indicates if in the absence
	of a call on a compatible phase in the opposite ring if the
•	partner phase will also display green.
TIMINGPLAN_LastCarPassage_code	This code determines that if gap reduction has been
	initiated and the phase gaps-out, the last vehicle crossing
	the detector before the gap-out will receive the initial or full
	extension time.
TIMINGPLAN_LocalCycleLength_quantity	The length of one timing cycle for a controller.
TIMINGPLAN_LocalT0_quantity	The time of T0 in system time.
TIMINGPLAN_MinimumGap_quantity	The minimum acceptable gap allowed.
TIMINGPLAN_Node_number	The node/intersection identifier for the timing plan.
TIMINGPLAN_Offset_quantity	The time relationship expressed in seconds or percent of
	cycle length, determined by the difference between a
	defined interval portion of the coordinated phase green and
	a system reference point.
TIMINGPLAN_SimultaneousGapOut_code	In dual ring operation, this code determines if the controller
	will service another phase if both active phases are not in
	gap-out or max-out mode.
TIMINGPLAN_SystemCycleLength_quantity	The background cycle length. The time from the beginning
	of main street green through all the phases back to the
ED INCREASE E	beginning of main street green.
TIMINGPLAN_Transition_code	The timing plan transition type for a fixed time controller.
TIMINGPLAN_YieldInterval_quantity	This is the only period of time during the cycle when phase
THE COLON AND WELL BY	1 may be terminated.
TIMINGPLAN_YieldPoint_quantity	The Yield Point begins a period of time known as the Yield
	Interval. This is the only period of time during the cycle
TRAFFICA SCICNIMENT Assemble Threshold over	when phase 1 may be terminated. The assignment process terminates when the maximum
TRAFFICASSIGNMENT_AcceptableThreshold_quan	number of iterations is reached, or when the relative change
tity	of the objective function between two successive iterations
	is less or equal to the threshold value (Epsilon), whichever
	occurs first.
TRAFFICASSIGNMENT_AccuracyThreshold_quantit	The line-search accuracy threshold.
v	The fine-scaren accuracy timeshord.
TRAFFICASSIGNMENT_AllOrNothingPercentage_q	Percentage of the impedances produced by an all-or-
uantity	nothing network loading that will be incorporated in the
	first assignment iteration.
TRAFFICASSIGNMENT_CapacityIterations_number	Number of capacity iterations to be applied.
TRAFFICASSIGNMENT_CapacitySmoothingPercent	Capacity smoothing factor to be applied if more than one
age_quantity	capacity adjustment iteration is requested.
TRAFFICASSIGNMENT_DavidsonRatio_quantity	Ratio of the service discharge rate to the saturation rate.
TRAFFICASSIGNMENT_ID_number	This will uniquely identify a set of assignment parameters.
TRAFFICASSIGNMENT_ImpedanceFunction_code	This code identifies the impedance function used.
TRAFFICASSIGNMENT_MaximumIterations_numbe	The assignment process terminates when the maximum
r	number of iterations is reached, or when the relative change
	of the objective function between two successive iterations
	is less or equal to the threshold value (Epsilon), whichever
	occurs first.
TRAFFICASSIGNMENT_OptimalityType_code	This code identifies which optimazation to use.
TRAFFICASSIGNMENT_ParameterA_quantity	This item assumes the CORSIM assignment function. The
	first parameter for the impedance function.
TRAFFICASSIGNMENT_ParameterB_quantity	This item assumes the CORSIM assignment function. The
	second parameter for the impedance function.

Name	Definition
TRANSIT_DwellTimePercentage_quantity	The factor by which the mean dwell time is multiplied to
5-1	compute the actual dwell time that the transit unit spends
	servicing passenger at an individual stop.
TRANSITROUTE_DownstreamNode_number	The downstream node number.
TRANSITROUTE_ID_number	This number uniquely identifies the transit route.
TRANSITROUTE_MeanHeadway_quantity	The mean headway between transit vehicles on this route.
TRANSITROUTE_Offset_quantity	An offset time at which a transit vehicle is emitted onto the
1	route.
TRANSITROUTE_StationID_number	The transit route station ID.
TRANSITROUTE_UpstreamNode_number	The upstream node number.
TRANSITSTATION_Distance_quantity	The distance from the downstream end of the transit stop to
,	the downstream stop bar.
TRANSITSTATION_DownstreamNode_number	The nearest downstream node number.
TRANSITSTATION_ID_number	This number uniquely identifies the transit station.
TRANSITSTATION_MaximumTransitVehicles_numb	The maximum number of transit vehicles the station can
er	hold at one time.
TRANSITSTATION_MeanDwellTime_quantity	The mean dwell time for transit vehicles to load and unload
	passengers at this station.
TRANSITSTATION_Protected_code	This code indicates whether the transit stop is protected or
TRANSPORTION_Polected_code	not. For example, the stop may be a turnout and does not
	block traffic.
TRANSITSTATION_ServicePercentage_quantity	Percentage of transit vehicles servicing this station that do
Training Table 1 - Salition of Comage_quamey	not stop due to lack of demand.
TRANSITSTATION_Type_code	This code identifies the transit station type.
TRANSITSTATION_UpstreamNode_number	The nearest upstream node number.
VEHICLE_Acceleration_quantity	The acceleration of a vehicle at a given instant.
VEHICLE_AccelerationMaximum_quantity	The maximum acceleration of a vehicle on a level road.
VEHICLE_DecelerationMaximum_quantity	The maximum deceleration allowed on level grade and dry
-•	pavement.
VEHICLE_Height_quantity	The height of a vehicle.
VEHICLE_Length_quantity	The length of a vehicle.
VEHICLE_LoadWeight_quantity	The weight of cargo and occupants carried by a vehicle.
VEHICLE_LoadWeightMaximumRecommended_qua	The recommended maximum cargo weight for a vehicle.
ntity	
VEHICLE_NonEmergencyMaximumDeceleration_qua	The largest value of deceleration that is allowed for car
ntity	following.
VEHICLE_Occupancy_quantity	The number of people, including the driver, inside a
	vehicle.
VEHICLE_OccupancyMaximum_quantity	The maximum number of people, including the driver, that
	should be carried in a particular vehicle.
EMISSION_VehiclePerformanceIndex_number	This is the Vehicle Performance Index specified in the
	Vehicle object.
VEHICLE_PowerMaximum_quantity	The maximum power produced by a vehicle's engine.
VEHICLE_ProjectedFrontalArea_quantity	The area of a vehicle's silhouette projected onto a vertical
	plane in front of the vehicle. (Influences drag
	characteristics.)
VEHICLE_Speed_quantity	The speed of a vehicle at a given instant.
VEHICLE_SpeedMaximum_quantity	The maximum speed of a vehicle on a level road.
VEHICLE_Type_code	This code identifies the vehicle type.

Appendix

UML Object Diagrams and Terminology

"Rational Software Corporation, where UML was developed, defines UML as a language for specifying, constructing, visualizing, and documenting the artifacts of a software-intensive system. The vocabulary of the language is a notation-a set of shapes in which each shape has a particular meaning. The grammar has carefully defined semantics that describe how each shape can be used. In combination, the notation and semantics make it possible to describe all kinds of systems, regardless of their scope and complexity. Rational Software Corporation compares UML to a blueprint for a construction project: it helps a team visualize a program's architecture throughout the development cycle.

"UML is a derivative language, formed from parts of three earlier languages: Booch, OMT (Object Modeling Technique), and OOSE (Object-Oriented Software Engineering). Unofficially, UML has become widely accepted as a standard and the Object Management Group (OMG) is considering a proposal for the adoption of UML as the official standard modeling language.

Quotes from Visio 5.0 Help, Copyright (C) 1997 Visio Corporation.

The UML diagrams and terms used in this document are as follows:

Package

The package diagram is used to partition a system into separate components such as facilities, displays, vehicles, etc.



Class

An object class describes a group of objects with similar properties (attributes), common behavior (operations), common relationships to other objects, and common semantics. For example, in this document "Lane" is an object class. While there are several types of lanes, left turn, right turn, through, etc., they all have similar properties, common behavior, relationships and semantics.

«Persistent» Lane
+LANE_AllowableMovements_code: integer +LANE_AntireferenceEndLocation_quantity: float +LANE_Channelization_code: integer +LANE_DetectorLength_quantity: float +LANE_DetectorLocation_quantity: float +LANE_DetectorType_code: integer +LANE_IncidentCode_code: integer +LANE_Length_quantity: float +LANE_Type_code: integer

Attributes

An attribute is a data value held by the objects in a class. In a traffic simulation each instance of a lane will have location and length. These characteristics are some of the attributes of a lane. The values can be unique for each instance of a lane but all lanes will have these values. In the class diagram above, nine attributes have been identified for the object class Lane. There, no doubt, are more but these are the attributes that have been identified as necessary to a generic traffic simulation.

Relationships

In an object diagram classes are linked together by relationships. These links represent physical or conceptual connections. There are several types of relationships used in object diagrams. In this document, two types of relationships are shown, generalizations and associations.

Generalization

The relationship between a class and one or more refined versions of it is called generalization. The refined class is called a subclass. For example the class Lane is the superclass and some of its subclasses are: HOV Lane, Bicycle Lane, Two Way Left Turn Lane. While each of these subclasses inherits the nine Lane attributes, they each may have attributes peculiar to their class. See the Lane Generalization Diagram. The arrow below is used to signify a generalization. The arrow head points to the superclass.



Association

An association describes a group of links with common structure and common semantics. For example, an association between the classes Driver, Vehicle and Lane is that, a Driver drives a Vehicle and a Vehicle occupies a Lane. These may not be the only associations. They are, however, some of the associations of interest to traffic simulations.

Multiplicity

Multiplicity specifies how many instances of one class may relate to a single instance of an associated class. For the classes Driver, Vehicle and Lane and the associations drives and occupies the multiplicities would be one Driver drives one Vehicle and many Vehicles occupy one Lane. The symbol below is used to signify an association and its multiplicity. A range is shown on each end of the line. Some of the possible ranges are: 1..1 (one and only one), 1..n (one or more), 0..1 (zero or one), etc.



Bibliography

The following documents were used as a source for the TSDD terms and definitions.

"Highway Capacity Manual Special Report 209", Transportation Research Board, National Research Council, Washington, D.C. (1985)

W.R. McShane, R.P. Roess and E.S. Prassas, "Traffic Engineering", Second Edition, Prentice Hall, Upper Saddle River, NJ (1998)

CALTRANS CTNET Field Communications Protocol ab3418 Specification (November 19, 1997)

CALTRANS Traffic Manual, Chapter 9, "Traffic Signals and Lighting"

JHK & Associates, Inc., "Connecticut Department of Transportation Advanced Traffic Management System Evaluation Study" (July 1996)

"Field Test of Monitoring of Urban Vehicle Operations Using Non-Intrusive Technologies", FHWA, Washington, D.C. (May 1997)

"Communications Handbook for Traffic Control Systems", FHWA, Washington, D.C. (April 1993)

"Traffic Control Systems Handbook", FHWA, Washington, D.C. (February 1996)

"The Manual on Uniform Traffic Control Devices", (1988)

Wallace, C.E. and K.G. Courage, "Methodology for Optimizing Signal Timing--the M|O|S|T Reference Manual," Volume 1 of a series of signal timing tools prepared for the Federal Highway Administration (FHWA) by COURAGE AND WALLACE, Gainesville, FL, (December 1991)

"TRANSYT-7F traffic simulation and signal timing optimization program User's Guide", FHWA, Washington, D.C. (1991)

"Detection Technology for IVHS", Final Report, FHWA, Washington, D.C. (December, 1996)

"Passive Optical Lane Position Monitor", Final Report, FHWA, Washington, D.C. (January 15, 1996)

"Distributed Input/Output Subsystem for Traffic Signal Control", Final Report, FHWA Washington, D.C. (July 1, 1995)

Ken Courage, "Potential Queue Estimation Methods for the HCM 2000", Gainesville, FL (Dec 17, 1997)

"Developing Traffic Signal Control Systems Using the National ITS Architecture", FHWA, Washington, D.C. (February 1998)

"Developing Freeway and Incident Management Systems Using the National ITS Architecture", FHWA, Washington, D.C. (August 1998)

"Integrating Intelligent Transportation Systems Within The Transportation Planning Process: An Interim Handbook", FHWA, Washington, D.C. (January 1998)

"Advanced Public Transportation Systems: The State of the Art Update '98", FHWA, Washington, D.C. (January 1998)

"Surveillance System Requirements Data Dictionary", Appendix I, Loral AeroSys IBI Group (June 23, 1995)

"Surveillance Requirements/Technology", Final Project Report, Loral AeroSys IBI Group (June 23, 1995)

NTCIP Joint Standards Committee, "National Transportation Communications for ITS Protocol (NTCIP) Guide" (March 3, 1997)

"Denver Metro Area Traffic Operations Center, Task 2 - Review State-of-the Art Facilities", Colorado Department of Transportation (December 1992)

"Implementation Plan - Las Vegas Area Computer Traffic System, Nevada Department of Transportation (September 1995)

"Traffic Management Data Dictionary", Section 1, TMDD (October 30, 1998)

"Traffic Management Data Dictionary", Section 2, TMDD (January 14, 1998)

"Traffic Management Data Dictionary", Section 3, TMDD (June 10, 1998)

"Traffic Management Data Dictionary", Section 4, TMDD (June 30, 1998)

"TRAFVU User's Guide", Version 1.0, FHWA, Washington, D.C. (April 1997)

Additionally, the help files from the following software were also used.

CORSIM
ITRAF
TwoPas
Synchro32
Highway Capacity Software (HCS-3)
TSIS
SimTraffic
Signal97/TEAPAC
Passer4

MISSION OF AFRL/INFORMATION DIRECTORATE (IF)

The advancement and application of Information Systems Science and Technology to meet Air Force unique requirements for Information Dominance and its transition to aerospace systems to meet Air Force needs.