

FSUTMS POWERED BY CUBE/VOYAGER DATA DICTIONARY



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1.0 Introduction

The purpose of this document is to describe a recommended FSUTMS Powered by Cube/Voyager data dictionary. This data dictionary reviews each standard FSUTMS/Tranplan file and identifies recommended new FSUTMS file names, Cube file types, old TRANPLAN file names, related model steps and programs, file functions, and data formats for core attributes and optional attributes. Separate sections are provided for input and output files.

This document is part of an ongoing series of reports that describe a set of new FSUTMS standards. In addition to standard file names and structures, standardization of model parameters and output reporting are presently under study.

A number of different file type extensions are recommended throughout this document. These include the following file extensions typically used in Cube-Voyager models:

- CSV – Tabular format readable in Excel (comma separated values)
- DAT – ASCII text format (Cube-Voyager default extension is DAT; FAC, FAR, PEN, PTS are also used)
- DBF – Database format readable by a variety of software programs
- LIN – Cube-Voyager transit line format
- MAT – Cube-Voyager matrix format
- NET – Cube-Voyager binary network database
- PRN – Cube-Voyager output files describing model execution and results (similar to FSUTMS *.OUT and not described in this document)
- RTE – Cube-Voyager transit path database
- S – Cube-Voyager model script (not described in this document)

Files are listed in order by FSUTMS-Cube/Voyager module:

- GENERATION – Trip generation and external-external trips
- NETWORK – Highway network and path building
- DISTRIBUTION – Trip distribution and congested skims
- TRANSIT – Transit network and pathbuilding
- MODE SPLIT – Mode choice and auto occupancy
- ASSIGNMENTS – Highway and transit assignments
- REPORTING – Highway and transit post-processing and reporting (only .PRN files at this time)

2.0 Input files

With the FSUTMS conversion from TRANPLAN to Cube-Voyager, it is recommended that file formats, names, and structures be reevaluated to maximize efficiency and minimize the use of older DOS-based formats such as ASCII text records. Use of more flexible formats such as DBF and CSV allows for easier identification of data fields and analyses using a variety of other software programs.

This section of the data dictionary identifies suggested input file information in alphabetic order by file name. Changes from standard FSUTMS file names are mostly cosmetic, to adhere to recently approved naming conventions that incorporate Cube-Voyager file types and names. The new file names are more descriptive and may deviate from the old UTPS file names, which were restricted to eight characters.

Highway network data are listed both in this section and in Section 3.0 on output files because one network database is used for editing while a final network database is constructed during model execution to incorporate updated speeds and capacities resulting from area type, facility type, and number of lanes edits. The file names for the two network versions are different, as noted.

DUWEIGHTS.DBF

FILE TYPE: DBF

OLD FILE NAME: DUWEIGHT.SYN

MODEL STEP: GENERATION

MODULE/PROGRAM USED BY: GENERATION/GENERATION

PRIMARY FUNCTION: Percentages used to stratify dwelling units into household size groups based on average persons per dwelling unit ranges.

DATA FORMAT:

	VARIABLE (FIELD) NAME	DESCRIPTION
*	1PERSONHH	Percent of households with 1 person
*	2PERSONHH	Percent of households with 2 persons
*	3PERSONHH	Percent of households with 3 persons
*	4PERSONHH	Percent of households with 4 persons
*	5PERSONHH	Percent of households with 5 persons

No Optional Attributes at this time

SPECIAL NOTES: The standard FSUTMS trip generation module was written in FORTRAN language. No FSUTMS trip generation models have been converted from FORTRAN code to Voyager scripting language. Furthermore, standard data formats are also complicated by the use of different trip generation structures throughout Florida. Hence, some trip generation models will not require persons per household as an element of the cross classification matrix. Once the Model Task Force adopts a new trip generation structure, the new module will be scripted in Cube/Voyager with a new standard format.

EETRIPS_yya.DBF

FILE TYPE: DBF

OLD FILE NAME: EETRIPS.yya

MODEL STEP: GENERATION

MODULE/PROGRAM USED BY: GENERATION(EXTERNAL)/MATRIX

PRIMARY FUNCTION: Denotes external-external trips between each pair of external zones

DATA FORMAT:

	VARIABLE (FIELD) NAME	DESCRIPTION
*	ORIGN_ZONE (ORZ)	Origin Zone
*	DESTINATION_ZONE (DSZ)	Destination Zone
*	AUTO_TRIPS	Number of EE Auto Trips (O-D)
o	SOV_TRIPS	SOV EE trips
o	HOV_TRIPS	HOV EE trips
o	LDT_TRIPS	Light Duty Truck EE trips
o	HDT_TRIPS	Heavy Duty Truck EE trips

SPECIAL NOTES: Different external trip purposes might be used in models throughout Florida.

GENRATES.DBF

FILE TYPE: DBF

OLD FILE NAME: GRATES.SYN

MODEL STEP: GENERATION

MODULE/PROGRAM USED BY: GENERATION

PRIMARY FUNCTION: Trip generation production and attraction rates

DATA FORMAT:

	VARIABLE (FIELD) NAME	DESCRIPTION
*	PERSONS_PER_DU	Value of 1 through 5
*	AUTOS_PER_DU	Value of 1 (0) through 3 (2+)
*	DU_TYPE	Value of 1 (SF), 2 (MF), or 3 (HM)
*	HBW_PRATE	HBW Trip Production Rate
*	HBSH_PRATE	HBSH Trip Production Rate
*	HBSR_PRATE	HBSR Trip Production Rate
*	HBO_PRATE	HBO Trip Production Rate
o	ATTFAC_PURP	Trip Attraction Purpose No. (1-5)
o	INDEMP_RATE	Attractions per Industrial Employee
o	COMEMP_RATE	Attractions per Commercial
Employee		
o	SEREMP_RATE	Attractions per Service Employee
o	TOTEMP_RATE	Attractions per Total Employee
o	TOTDU_RATE	Attractions per Dwelling Unit
o	SCHOOL_RATE	Attractions per School Enrollment

SPECIAL NOTES: The standard FSUTMS trip generation module was written in FORTRAN language. No FSUTMS trip generation models have been converted from FORTRAN code to Voyager scripting language. It is recognized that the above standard format will vary as different trip generation structures are used throughout Florida.

INTEXT_yya.DBF

FILE TYPE: DBF

OLD FILE NAME: ZDATA4.yya

MODEL STEP: GENERATION

MODULE/PROGRAM USED BY: GENERATION

PRIMARY FUNCTION: Internal-external trip productions for trip generation

DATA FORMAT:

	VARIABLE (FIELD) NAME	DESCRIPTION
*	ZONE	Zone No.
*	IE_PROD	Internal-External Trip Production
o	SECTOR	Planning District or Sector No.
o	PCT_SOV	Percent Single-Occupant Vehicles
o	PCT_HOV	Percent High-Occupancy Vehicles
o	PCT_LDT	Percent Light-Duty Trucks
o	PCT_HDT	Percent High-Duty Trucks

SPECIAL NOTES: The standard FSUTMS trip generation module was written in FORTRAN language. No FSUTMS trip generation models have been converted from FORTRAN code to Voyager scripting language. Furthermore, standard data formats are also complicated by the use of different trip generation structures throughout Florida. Once the Model Task Force adopts a new trip generation structure, the new module will be scripted in Cube/Voyager with a new standard format.

SPECGEN_yya.DBF

FILE TYPE: DBF

OLD FILE NAME: ZDATA3.yya

MODEL STEP: GENERATION

MODULE/PROGRAM USED BY: GENERATION

PRIMARY FUNCTION: Special generator data for trip generation

DATA FORMAT:

	VARIABLE (FIELD) NAME	DESCRIPTION
*	ZONE	Zone No.
*	P_OR_A	Production/Attraction Indicator
*	OPERAND	Add, Subtract, or Total Trips
*	TRIPS_OR_DIFF	No. of Trips or Trip Difference
*	PCT_HBW	Percent Home-based Work Trips
*	PCT_HBSH	Percent Home-based Shop Trips
*	PCT_HBSR	Percent Home-based SocRec Trips
*	PCT_HBO	Percent Home-based Other Trips
*	PCT_NHB	Percent Nonhome-based Trips
o	TOT_EMP	Total Employment Subtraction
o	COMM_EMP	Commercial Employment Subtract
o	SERV_EMP	Service Employment Subtraction
o	SCHOOL	School Enrollment Subtraction
o	TOT_DU	Total Dwelling Units Subtraction
o	DESCR	Description of Special Generator
o	SECTOR	Planning District or Sector No.

SPECIAL NOTES: The standard FSUTMS trip generation module was written in FORTRAN language. No FSUTMS trip generation models have been converted from FORTRAN code to Voyager scripting language. Furthermore, standard data formats are also complicated by the use of different trip generation structures throughout Florida. Once the Model Task Force adopts a new trip generation structure, the new module will be scripted in Cube/Voyager with a new standard format.

ZONEDATA_yya.DBF

FILE TYPE: DBF

OLD FILE NAME: ZDATA1.yya, ZDATA2.yya

MODEL STEP: GENERATION

MODULE/PROGRAM USED BY: GENERATION

PRIMARY FUNCTION: Trip production and attraction data for trip generation

DATA FORMAT:

	VARIABLE (FIELD) NAME	DESCRIPTION
*	ZONE	Zone No.
*	SFDU	Single-Family Dwelling Units
*	SF(MF)PCTVNP	SF(MF)DUs % Vacant/Non-Perm.
*	SF(MF)PCTVAC	SF(MF)DUs % Vacant
*	SFPOP	Single-Family Population
*	SF(MF)_0AUTO	SF(MF)DUs with 0 Autos
*	SF(MF)_1AUTO	SF(MF)DUs with 1 Auto
*	SF(MF)_2AUTO	SF(MF)DUs with 2+ Autos
*	MFDU	Multi-Family Dwelling Units
*	MFPOP	Multi -Family Population
*	HMDU	Hotel-Motel Dwelling Units
*	HMOCC	HMDUs % Occupied
*	HMPOP	Hotel-Motel Population
*	IND_EMP	Industrial Employment
*	COMM_EMP	Commercial (Retail) Employment
*	SERV_EMP	Service Employment
*	TOT_EMP	Total Employment
*	SCHOOL	School Enrollment
o	SECTOR	Planning District or Sector No.
o	DRI Name	Name for zones in DRI
o	BUILDOUT Year	Estimated buildout year for DRI

SPECIAL NOTES: The combining of ZDATA1 and ZDATA2 information into one file enhances the linkages to GIS analyses of socioeconomic data. Trip generation programs will be rewritten using Voyager scripting language to incorporate the combining of ZDATA files.

HWYNET_yya.NET

FILE TYPE: NET

OLD FILE NAME: LINKS.yya and XY.yya

MODEL STEP: NETWORK

MODULE/PROGRAM GENERATED BY: NETWORK

PRIMARY FUNCTION: Highway network database for editing and updating.

DATA FORMAT:

	VARIABLE (FIELD) NAME	DESCRIPTION
*	A	ANODE
*	B	BNODE
*	DISTANCE	Calculated Distance in Miles
*	FTYPE	Facility Type
*	ATYPE	Area Type
*	LANES	Directional No. of Lanes
*	SCREENLINE	Screenline No.
*	DIR	Indicates One-Way Operation
*	COUNT	Directional Daily PSWADT
o	COUNT_STAT	Count Station No.
o	COUNT_SOURCE	Source of Count
o	MOCF	Model Output Conversion Factor
o	GEOLOC	Geographic Location Code
o	TOLL_ID	Toll Plaza ID No.
o	SPEED	Calculated Speed
o	TIME	Calculated Travel Time
o	CAPACITY	Calculated Capacity
o	NAME	Street Name
o	COFIPS	County FIPS Code
o	DISTRICT	Planning District or Sector
o	GEOLOC	Geographic Location Code (County)
o	POSTED_SPEED	Posted Speed

SPECIAL NOTES: Highway network variables have varied considerably among different Cube-Voyager models. Efforts are underway to identify key statewide variable standards.

SPDCAP_yya.CSV

FILE TYPE: CSV

OLD FILE NAME: SPDCAP.yya

MODEL STEP: NETWORK

MODULE/PROGRAM USED BY: NETWORK

PRIMARY FUNCTION: Lookup table of highway speeds and capacities by area type, facility types, and number of lanes

DATA FORMAT:

	VARIABLE (FIELD) NAME	DESCRIPTION
*	LOW_ATYPE	Bottom of Area Type Range
*	HIGH_ATYPE	Top of Area Type Range
*	LOW_FTYPE	Bottom of Facility Type Range
*	HIGH_FTYPE	Top of Facility Type Range
*	LOW_LANES	Bottom of Lanes Range
*	HIGH_LANES	Top of Lanes Range
*	CAP_OPERAND	Capacity Operand
*	CAPACITY	Capacity or Capacity Factor
*	SPEED_OPERAND	Speed Operand
*	SPEED	Speed or Speed Factor/Augment

No Optional Attributes at this time; however, fields can repeat up to three times

SPECIAL NOTES:

TOLLLINK_yya.DAT

FILE TYPE: DAT

OLD FILE NAME: TOLLLINK.yya

MODEL STEP: NETWORK and ASSIGNMENT

MODULE/PROGRAM USED BY: NETWORK, ASSIGNMENT/HIGHWAY

PRIMARY FUNCTION: Contains data related to toll plaza configurations

DATA FORMAT:

VARIABLE (FIELD) NAME	DESCRIPTION
* TOLL CLASS	Toll plaza identifier
* TOLL TYPE	Type of toll plaza
* ANODE	ANODE of toll plaza
* BNODE	BNODE of toll plaza
* DESCRIPTION	Description of toll plaza location
* NUM_LANES	Number of toll plaza lanes
* MAX_LANES	Maximum toll plaza lanes
* TOLL VALUE	Toll rate in dollars and cents
* SERVT	Service time at toll plaza
* DECEL_CODE	Deceleration code
* ACCEL_CODE	Acceleration code
* EXACT_CHANGE	Exact change lanes
* AVI_LANES	Automated vehicle identification In
* PCT_TRUCKS	Percent heavy trucks at toll plaza

SPECIAL NOTES: FDOT Turnpike Enterprise will be involved in any enhancements to this model format and needed contents for toll modeling. It might be possible to convert this text file to a CSV or DBF format.

TURN_yya.PEN

FILE TYPE: DAT (Voyager Penalty File Text Format)

OLD FILE NAME: TCARDS.yya

MODEL STEP: NETWORK

MODULE/PROGRAM USED BY: NETWORK/HIGHWAY

PRIMARY FUNCTION: Listing of turn penalties and prohibitors

DATA FORMAT:

	VARIABLE (FIELD) NAME	DESCRIPTION
*	ANODE	A Node or Entry Node
*	BNODE	B Node or Turn Node
*	CNODE	C Node or Exit Node
*	PENALTY_SET	Penalty Set
*	PENALTY_VAL	Penalty Value

SPECIAL NOTES: The “yya” extension is necessary as penalties and prohibitors might vary by year and alternate. It is possible that with the use of “penalty sets” that the year and alternate might not be needed but additional testing of real models with multiple years and alternatives should be conducted to verify this.

VFACTORS_yya.CSV

FILE TYPE: CSV

OLD FILE NAME: VFACTORS.yya

MODEL STEP: NETWORK

MODULE/PROGRAM USED BY: NETWORK/NETWORK

PRIMARY FUNCTION: Variable factors for UROAD, CONFAC, and BPR coefficients

DATA FORMAT:

VARIABLE (FIELD) NAME	DESCRIPTION
* FT	Facility Type
* UROADF	Practical/Absolute Capacity Ratio
* CONFAC	Peak-to-Daily Capacity Factor
* BPR LOS	BPR (alpha) level-of-service value
* BPR EXP	BPR (beta) exponent

No Optional Attributes at this time

SPECIAL NOTES:

FF.DBF

FILE TYPE: DBF

OLD FILE NAME: FF.yya

MODEL STEP: DISTRIBUTION

MODULE/PROGRAM USED BY: DISTRIBUTION/ DISTRIBUTION

PRIMARY FUNCTION: Friction factors by trip purpose by travel time for input to Gravity Model

DATA FORMAT:

	VARIABLE (FIELD) NAME	DESCRIPTION
*	HBWFF	Home-based Work Friction Factors
*	HBSHFF	Home-based Shop Friction Factors
*	HBSRFF	Home-based Social/Rec Friction Factors
*	HBOFF	Home-based Other Friction Factors
*	NHBFF	Nonhome-based Friction Factors
*	TTFF	Truck-Taxi Friction Factors
*	IEFF	Internal-External Friction Factors
o	TK4FF or LTRK	Truck 4-Tire Friction Factors
o	TKSGLFF or MTRK	Truck 6-Tire Single Unit Friction Factors
o	TKTRLRFF or HTRK	Truck Trailer Friction Factors
o	SOIEFF	Internal-External SOV Friction Factors
o	HOIEFF	Internal-External HOV Friction Factors
o	LDIEFF	Internal-External Light Duty Truck FFs
o	HDIEFF	Internal-External Heavy Duty Truck FFs

SPECIAL NOTES: Trip purposes vary by model so additional optional variables might exist for other models.

TFAREStp_yya.FAR

FILE TYPE: FAR

OLD FILE NAME: TPATH.TR?

MODEL STEP: TRANSIT

MODULE/PROGRAM USED BY: TRANSIT/PUBLIC TRANSPORT

PRIMARY FUNCTION: Transit fares by mode and transfer mode

DATA FORMAT:

VARIABLE (FIELD) NAME	DESCRIPTION
* NUMBER	Mode No.
* LONGNAME	Description of Mode
* NAME	Short Mode Name
* STRUCTURE	Fare Structure (Flat Rate, etc.)
* SAME	Separate or Cumulative
* IBOARDFARE	Boarding Fare
* FAREFROMFS	Fares between Modes
* FAREFZONES	Fares Zones

No Optional Attributes at this time

SPECIAL NOTES:

SDLAYUPD_yya.DAT

FILE TYPE: DAT

OLD FILE NAME: SDLAYUPD.yya (Part 1)

MODEL STEP: TRANSIT

MODULE/PROGRAM USED BY: TRANSIT/MATRIX

PRIMARY FUNCTION: Identify curves used to derive transit speeds from highway network attributes

DATA FORMAT:

	VARIABLE (FIELD) NAME	DESCRIPTION
*	RECORD TYPE	Record Type 2
*	LOW_MODE	Bottom of Mode Range
*	HIGH_MODE	Top of Mode Range
*	LOW_ATYPE	Bottom of Area Type Range
*	HIGH_ATYPE	Top of Area Type Range
*	LOW_FTYPE	Bottom of Facility Type Range
*	HIGH_FTYPE	Top of Facility Type Range
*	CURVE_NO	Curve Number (See TSPDS.CSV)

No Optional Attributes at this time; however, fields can repeat up to three times

SPECIAL NOTES: Actual highway/transit speed curves are specified in TPSDS.CSV. As the Model Task Force develops new standard transit modeling methodology using Cube/Voyager's Public Transport module, a new set of files and variables will be identified.

STATDATA_yya.DAT

FILE TYPE: DAT

OLD FILE NAME: STATDATA.yya

MODEL STEP: TRANSIT

MODULE/PROGRAM USED BY: TRANSIT/MATRIX

PRIMARY FUNCTION: Data related to transit stations/park-n-ride lots

DATA FORMAT:

VARIABLE (FIELD) NAME	DESCRIPTION
* STATION_NUM	Station Number
* STATION_NODE	Station Node
* STATION_ZONE	Station Zone
* PNR_CAPACITY	Parking Capacity in Vehicles
* LT_PARK	Long-Term Parking Cost
* ST_PARK	Short-Term Parking Cost
* PNR_WALK	Walk time from PNR to station
* KNR_WALK	Walk time from KNR to station
* FLAG	<i>User-Defined</i>
* STATION_NAME	Station Description

No Optional Attributes at this time

SPECIAL NOTES:

SYSTEM.PTS

FILE TYPE: PTS (ASCII)

OLD FILE NAME: TPARMtp.syn

MODEL STEP: TRANSIT

MODULE/PROGRAM USED BY: TRANSIT/PUBLIC TRANSPORT

PRIMARY FUNCTION: Definitions of transit modes and vehicle types

DATA FORMAT:

VARIABLE (FIELD) NAME	DESCRIPTION
* MODE_NUM	Network mode number
* LONG_NAME	Long name for mode, vehicle
* NAME	Abbreviated mode, vehicle name
* VEHICLETYPE_NUM	Vehicle type number
* WAITCURVE_DEF	Curve number, name, long name
* CURVE	Wait curve

No Optional Attributes at this time

SPECIAL NOTES: This file represents one of several new files required for transit network building with Cube/Voyager's Public Transport module. This file is not alternative specific.

TNETtp#.FAC

FILE TYPE: FAC (ASCII DAT Text Format)

OLD FILE NAME: TPARMtp.syn (tp=time period, AM or MD)

MODEL STEP: TRANSIT

MODULE/PROGRAM USED BY: TRANSIT/PUBLIC TRANSPORT

PRIMARY FUNCTION: Contains factors and penalties by transit mode

DATA FORMAT:

VARIABLE (FIELD) NAME	DESCRIPTION
* MAXFERS	Maximum transfers allowed
* EXTRA_XFERS	Number of transfers for routing
* SPREADFACT	Used to calculate spread for routing
* SPREADFUNC	Function used to calculate spreading
* SPREADCONST	Additive constant to calculate spread
* REWAIT_MIN	Minimum weighted wait time
* REWAIT_MAX	Maximum weighted wait time
* RUNFACTOR	In-Vehicle run time factor
* XFER_CONST	Constant added to transfer penalties
* BRD_PEN	Boarding penalty
* ALPHA	Relationship of walk vs onward costs
* LAMBDAA	Scaling factor for walk choice
* LAMBDAA	Scaling factor for auto access?
* CHOICECUT	Eliminates low probabilities of use
* IWAITCURVE	Wait curve at boarding point
* XWAITCURVE	Wait curve at transfer point
* WAITFACTOR	Node specific wait time factor
* VALUE_OF_TIME	Value of time by transit mode

No Optional Attributes at this time

SPECIAL NOTES: This file is one of several new files required for transit network building with Cube/Voyager's Public Transport module. Separate files are by time period (tp) and access mode (#). This file is not alternative specific.

TROUTE_yya.LIN

FILE TYPE: LIN

OLD FILE NAME: TROUTEtp.yya (tp = time period, AM or MD)

MODEL STEP: TRANSIT

MODULE/PROGRAM USED BY: TRANSIT/PUBLIC TRANSPORT

PRIMARY FUNCTION: Transit route records

DATA FORMAT: (not columnar)

VARIABLE (FIELD) NAME	DESCRIPTION
* LINE NAME	Transit line name & route no.
* ONEWAY	T (true) or F (false)
* HEADWAY[1]	Bus headway in minutes
* HEADWAY[2]	Bus headway in minutes (alt)
* MODE	Transit network mode no.
* OPERATOR	Transit system operator no.
* N	Node number (stops with hyphen)

No Optional Attributes at this time

SPECIAL NOTES: Two different headways can be specified for each route or HEADWAY[1] and HEADWAY[2] can each have the same values.

TSPDS.CSV

FILE TYPE: CSV

OLD FILE NAME: SDLAYUPD.yya (Part 2)

MODEL STEP: TRANSIT

MODULE/PROGRAM USED BY: TRANSIT/NETWORK

PRIMARY FUNCTION: Highway/transit speed delay curves

DATA FORMAT:

VARIABLE (FIELD) NAME	DESCRIPTION
-----------------------	-------------

*

No Optional Attributes at this time; however, fields can repeat up to three times

SPECIAL NOTES: Curves are specified by auto speed and corresponding transit speed. Corresponding modes, area types, and facility types for each curve are specified in SDLAYUPD_yya.DAT.

3.0 Output Files

Output file formats must be consistent with file formats used in Cube/Voyager as the majority of output files are subsequently used as input to other Cube/Voyager model steps. At the same time, flexible formats must be used for some files so that post processing and GIS analyses can be conducted, as necessary.

The following is a list of output file names in alphabetical order. The formats and contents are based largely on converted Cube-Voyager models currently available in Florida. Special processes unique to these models have been noted only where potential applications might be used in other areas of Florida. Output file names have been modified more than the input files as existing FSUTMS output names tend to be based on old UTPS naming conventions that might not be clear to the younger generation of Florida modeling professionals.

EETABLE_ayy.MAT

FILE TYPE: MAT

OLD FILE NAME: EETAB.ayy

MODEL STEP: GENERATION

MODULE/PROGRAM GENERATED BY: GENERATION (EXTERNAL)/MATRIX

PRIMARY FUNCTION: External-external trip table

DATA FORMAT:

	TABLE NAME	DESCRIPTION
*	EETRIPS	External-external trips (zone pair)
o	EESOV	External-external SOV trips
o	EEHOV	External-external HOV trips
o	EELTRK	External-external Lt Truck trips
o	EEHVTRK	External-external Hv Truck trips
o	TOTAL	External-external Total trips

SPECIAL NOTES: The optional tables listed above are designed to apportion external-external trips into auto occupancy and truck categories for testing of special use lanes.

PANDA_ayy.DBF

FILE TYPE: DBF

OLD FILE NAME: PRODS.ayy and ATTRS.ayy

MODEL STEP: GENERATION

MODULE/PROGRAM GENERATED BY: GENERATION/MATRIX

PRIMARY FUNCTION: Productions and attractions by TAZ and trip purpose

DATA FORMAT:

	VARIABLE (FIELD) NAME	DESCRIPTION
*	Z or ZONE	Zone No.
*	HBWP	Home-based Work Productions
*	HBWA	Home-based Work Attractions
*	HBSHP	Home-based Shop Productions
*	HBSHA	Home-based Shop Attractions
*	HBSRP	Home-based SocRec Productions
*	HBSRA	Home-based SocRec Attractions
*	HBOP	Home-based Other Productions
*	HBOA	Home-based Other Attractions
*	NHBP	Nonhome-based Productions
*	NHBA	Nonhome-based Attractions
*	TRKTAXIP	Truck-Taxi Productions
*	TRKTAXIA	Truck-Taxi Attractions
*	IEP	Internal-External Productions
*	IEA	Internal-External Attractions
o	DISTRICT	Planning District or Sector No.
o	IESOVP	Internal-external SOVProductions
o	IESOVA	Internal-external SOV Attractions
o	IEHOVP	Internal-externalHOVProductions
o	IEHOVA	Internal-external HOV Attractions

SPECIAL NOTES: The optional tables listed above are designed to apportion internal-external trips into auto occupancy and truck categories for testing of special use lanes.

FREESKIM_ayy.MAT

FILE TYPE: MAT

OLD FILE NAME: FHSKIMS.ayy

MODEL STEP: NETWORK

MODULE/PROGRAM GENERATED BY: NETWORK/HIGHWAY

PRIMARY FUNCTION: Free-flow highway skims matrix for all zone-to-zone pairs

DATA FORMAT:

	TABLE NAME	DESCRIPTION
*	TIME	Travel Time Table
*	DISTANCE	Distance Table
*	TERMINAL_TIME	Terminal Time Table
o	WALK_DISTANCE	Walk Distance Table
o	TOLL	Toll Skims Table
o	TIME2	Travel Time Cost Table
o	HOV_COST	HOV Travel Time Cost Table
o	HOV_DISTANCE	HOV Distance Table
o	HOV_TIME	HOV Travel Time Table
o	HOV_TIME2	HOV Travel Time Cost Table

SPECIAL NOTES: The optional tables listed above are designed for testing of special use lanes or preparing non-motorized travel estimates.

UNLOADED_ayy.NET

FILE TYPE: NET

OLD FILE NAME: HNET.ayy

MODEL STEP: NETWORK

MODULE/PROGRAM GENERATED BY: NETWORK

PRIMARY FUNCTION: Highway network database after speed and capacity updating

DATA FORMAT:

VARIABLE (FIELD) NAME	DESCRIPTION
* A	ANODE
* B	BNODE
* DISTANCE	Calculated Distance in Miles
* FTYPE	Facility Type
* ATYPE	Area Type
* LANES	Directional No. of Lanes
* SCREENLINE	Screenline No.
* DIR	Indicates One-Way Operation
* SPEED	Calculated Speed
* TIME	Calculated Travel Time
* CAPACITY	Calculated Capacity
* COUNT	Directional Daily PSWADT
o COUNT_STAT	Count Station No.
o COUNT_SRCE	Source of Count
o MOCF (or PSCF)	Model Output Conversion Factor
o GEOLOC	Geographic Location Code
o TOLL_ID	Toll Plaza ID No.
o NAME	Street Name
o COFIPS	County FIPS Code
o DISTRICT	Planning District or Sector
o GEOLOC	Geographic Location Code (County)

SPECIAL NOTES: Highway network variables have varied considerably among different Cube/Voyager models.

CONGSKIM_ayy.MAT

FILE TYPE: MAT

OLD FILE NAME: RHSKIMS.ayy

MODEL STEP: DISTRIBUTION

MODULE/PROGRAM GENERATED BY: DISTRIBUTION/HIGHWAY

PRIMARY FUNCTION: Congested highway skims matrix for all zone-to-zone pairs.

DATA FORMAT:

	TABLE NAME	DESCRIPTION
*	TIME	Travel Time Table
*	DISTANCE	Distance Table
*	TERMINAL_TIME	Terminal Time Table
o	TOLL	Toll Skims Table
o	COMP_TIME	Composite Travel Time Table
o	HOV_COST	HOT Travel Time Cost Table
o	HOV_DISTANCE	HOV Distance Table
o	HOV_TIME	HOV Travel Time Table
o	HOV_TIME2	HOV Travel Time Cost Table

SPECIAL NOTES: The optional tables listed above are designed for testing of special use lanes.

PSNTRIPS_ayy.MAT

FILE TYPE: MAT

OLD FILE NAME: PTRIPS.ayy (person trip purposes only)

MODEL STEP: DISTRIBUTION

MODULE/PROGRAM GENERATED BY: DISTRIBUTION

PRIMARY FUNCTION: Person Trip Tables by TAZ and trip purpose

DATA FORMAT:

	TABLE NAME	DESCRIPTION
*	HBW	Home-based Work Person Trips
*	HBSH	Home-based Shop Person Trips
*	HBSR	Home-based SocRec Person Trips
*	HBO	Home-based Other Person Trips
*	NHB	Nonhome-based Person Trips

Optional variables include vehicle trip purposes and other person trip purposes

SPECIAL NOTES: There are a variety of trip purposes used in models throughout Florida so additional variables are likely in a number of models. One suggestion here is to keep vehicle trip purposes in a separate file (VEHTRIPS.MAT) described later in this section.

VEHTRIPS_ayy.MAT

FILE TYPE: MAT

OLD FILE NAME: PTRIPS.ayy (vehicle trip purposes only)

MODEL STEP: DISTRIBUTION

MODULE/PROGRAM GENERATED BY: DISTRIBUTION

PRIMARY FUNCTION: Vehicle Trip Tables by TAZ and trip purpose

DATA FORMAT:

	TABLE NAME	DESCRIPTION
*	TRKTAXI	Truck-Taxi Vehicle Trips
*	IE	Internal-External Vehicle Trips
o	LTRK	Light Duty Truck Trips
o	MTRK	Medium Duty Truck Trips
o	HTRK	Heavy Duty Truck Trips
o	SOIE	Single-Occupant Internal-External
o	HOIE	High-Occupant Internal-External
o	LDIE	Light Duty Internal-External
o	HDIE	Heavy Duty Internal-External

Optional variables include other vehicle trip purposes

SPECIAL NOTES: There are a variety of trip purposes used in models throughout Florida so additional variables are likely in a number of models. One suggestion here is to keep person trip purposes in a separate file (PSNTRIPS.MAT) described earlier in this section.

TFAREtp_ayy.MAT

FILE TYPE: MAT

OLD FILE NAME: TFAREtp.ayy (tp=time period, AM or MD)

MODEL STEP: TRANSIT

MODULE/PROGRAM GENERATED BY: TRANSIT/MATRIX

PRIMARY FUNCTION: Transit network fares (zone-to-zone)

DATA FORMAT:

TABLE NAME	DESCRIPTION
FAREWLB	Walk Access Local Bus Fare
FAREWEB	Walk Access Express Bus Fare
FAREWRL	Walk Access Rail Fare
FAREALB	Auto Access Local Bus Fare
FAREAEB	Auto Access Express Bus Fare
FAREARL	Auto Access Rail Fare

No Standard Attributes exist at this time

SPECIAL NOTES: Separate transit fare matrices will be generated for each access mode for each time period. Consideration could be given to using the terms PK (peak) and OP (offpeak) in place of AM (peak) and MD (midday).

TPATHtp#_ayy.RTE

FILE TYPE: RTE

OLD FILE NAME: TPATHtp.ayy (tp=time period, AM or MD)

MODEL STEP: TRANSIT

MODULE/PROGRAM GENERATED BY: TRANSIT/PUBLIC TRANSPORT

PRIMARY FUNCTION: Transit network paths

DATA FORMAT:

VARIABLE (FIELD) NAME	DESCRIPTION
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No Standard Attributes exist at this time

SPECIAL NOTES: Separate transit paths will be generated for each access mode for each time period. Consideration could be given to using the terms PK (peak) and OP (offpeak) in place of AM (peak) and MD (midday) for time periods.

TSKIMtp#_ayy.MAT

FILE TYPE: MAT

OLD FILE NAME: TSKIMtp.ayy (tp=time period, AM or MD)

MODEL STEP: TRANSIT

MODULE/PROGRAM GENERATED BY: TRANSIT/MATRIX

PRIMARY FUNCTION: Transit network skims

DATA FORMAT:

TABLE NAME	DESCRIPTION
WALKTIME	Walk skims
AUTOTIME	Auto skims
IWAIT	Wait time skims
LBUSTIME	Local bus skims
EBUSTIME	Express bus skims
RAILTIME	Rail skims
XWAIT	Transfer wait time skims
XFER	Transfer skims

No Standard Attributes exist at this time

SPECIAL NOTES: Separate transit skims will be generated for each access mode for each time period. Consideration could be given to using the terms PK (peak) and OP (offpeak) in place of AM (peak) and MD (midday).

HWYTRIPS_ayy.MAT

FILE TYPE: MAT

OLD FILE NAME: HTTAB.ayy (highway trip purposes only)

MODEL STEP: MODE

MODULE/PROGRAM GENERATED BY: MODE/MATRIX

PRIMARY FUNCTION: Highway Trip Tables by TAZ and trip purpose

DATA FORMAT:

	TABLE NAME	DESCRIPTION
*	TRK	Truck Vehicle Trips for Loading
*	SOV	SOV Vehicle Trips for Loading
*	HOV	HOV Vehicle Trips for Loading
o	TRKIEII	Internal plus IE Truck Trips
o	SOVIEII	Internal plus IE Single-Occupant
o	HOVIEII	Internal plus IE High-Occupant
o	TRKEE	External-External Truck Trips
o	SOVEE	Single-Occupant External-External
o	HOVIE	High-Occupant External-External

Optional variables include other vehicle trip purposes

SPECIAL NOTES: There are a variety of trip purposes used in models throughout Florida so additional variables are likely in a number of models. The suggestion here is to keep highway and transit trip purposes in separate files for assignment loading.

TRNTRIPStp#_ayy.MAT

FILE TYPE: MAT

OLD FILE NAME: HTTAB.ayy (transit trip purposes only)

MODEL STEP: MODE

MODULE/PROGRAM GENERATED BY: MODE/MATRIX

PRIMARY FUNCTION: Transit Trip Tables by TAZ and trip purpose

DATA FORMAT:

TABLE NAME	DESCRIPTION
AMWLB	AM Walk Access Local Bus
AMWEB	AM Walk Access Express Bus
AMWRL	AM Walk Access Rail
AMALB	AM Auto Access Local Bus
AMAEB	AM Auto Access Express Bus
AMARL	AM Auto Access Rail
MDWLB	MD Walk Access Local Bus
MDWEB	MD Walk Access Express Bus
MDWRL	MD Walk Access Rail
MDALB	MD Auto Access Local Bus
MDAEB	MD Auto Access Express Bus
MDARL	MD Auto Access Rail

A standard set of transit trip purposes will be developed. Consideration could be given to using the terms PK (peak) and OP (offpeak) in place of AM (peak) and MD (midday).

SPECIAL NOTES: There are a variety of trip purposes used in models throughout Florida so additional variables are likely in a number of models. The suggestion here is to keep highway and transit trip purposes in separate files for assignment loading.

HWYLOAD_ayy.NET

FILE TYPE: NET

OLD FILE NAME: HRLDXY.ayy

MODEL STEP: ASSIGNMENT

MODULE/PROGRAM GENERATED BY: ASSIGNMENT/HIGHWAY

PRIMARY FUNCTION: Loaded highway network database

DATA FORMAT:

	VARIABLE (FIELD) NAME	DESCRIPTION
*	VOL_TOTAL	Total Daily PSWADT
*	VOL_TRUCK	Total Daily Truck Volume
*	VOL_SOV	Total Daily SOV Volume
*	VOL_HOV	Total Daily HOV Volume
*	AADT	AADT (PSWADT*MOCF)
*	CG_SPEED	Congested Speed
*	CG_TIME	Congested Travel Time
o	VHT	Vehicle-Hours Traveled
o	VMT	Vehicle-Miles Traveled

SPECIAL NOTES: Highway network variables have varied considerably among different Cube/Voyager models. The above suggestions are in addition to variables described for the unloaded highway network.

TRNLOADtp_ayy.NET

FILE TYPE: NET

OLD FILE NAME: TLEGStp.ayy (tp=time period, AM or MD)

MODEL STEP: ASSIGNMENT

MODULE/PROGRAM GENERATED BY: ASSIGNMENT/PUBLIC TRANSPORT

PRIMARY FUNCTION: Loaded transit network database

DATA FORMAT:

VARIABLE (FIELD) NAME	DESCRIPTION
LONG_NAME	Transit line name & route no.
HEADWAY[1]	Bus headway in minutes
HEADWAY[2]	Alternate bus headway in minutes
MODE	Transit network mode no.
OPERATOR	Transit system operator no.
N	Node numbers (stops with hyphen)
ON	Trips boarding at Node N
OFF	Trips alighting at Node N
VOL	Transit load between Nodes

No Standard Attributes exist at this time

SPECIAL NOTES: Separate loaded transit networks will be generated for each access mode for each time period. A standard process should be developed to add these individual loads together by route. A standard set of transit trip purposes will also be developed. Consideration could be given to using the terms PK (peak) and OP (offpeak) in place of AM (peak) and MD (midday).

TRNLOADtp_ayy.DBF

FILE TYPE: NET

OLD FILE NAME: TLEGStp.ayy (tp=time period, AM or MD)

MODEL STEP: ASSIGNMENT

MODULE/PROGRAM GENERATED BY: ASSIGNMENT/PUBLIC TRANSPORT

PRIMARY FUNCTION: Loaded transit network database

DATA FORMAT:

VARIABLE (FIELD) NAME	DESCRIPTION
A	A Node
B	B Node
MODE	Transit network mode no.
NAME	Transit system name
DIST	Leg distance
TIME	Leg travel time
SEGMENT	Route No. in leg
COUNT	Total number of route in leg
HEADWAY	Headway
VOLUME	Transit load on the leg

No Standard Attributes exist at this time

SPECIAL NOTES:



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