

Pre Distribution Pseudo Code

This documents the order of operation of the subroutines in Pre Distribution code.

Input parameters are provided to the model via a set of trip purpose-specific text files (PD_[purpose]_NAMELIST.TXT). This setup allows for all trip purposes to be processed simultaneously. Each trip purpose also has a specific file of random seeds applied to each zonal interchange.

Additional documentation of table attributes is included in the [Travel Demand Model Documentation](#).

Pre_distribution.for

- INCLUDE 'Common_params.fi'
- INCLUDE 'Common_data.fi'
- INCLUDE 'Common_emme4bank.fi'
- INCLUDE 'Common_approach_model.fi' – common blocks for approach submodel, DISTR file metadata
- INCLUDE 'Common_cbdparking.fi'
- CALL DATA1 - reads the namelist parameters input by the user, sets default values & obtains random number seed
- CALL DATA2- reads zonal, zone type & system-wide parameters from M01 and M023 cards; set HO vehicle occupancy to 1.66 & NH vehicle occupancy to 1.19
 - Calls Report1.for – writes M01 file inputs to log file
 - Calls Report2.for – writes DISTR file inputs to log file
- call **OPEN_EMME4** – open the emmebank and read the parameters
 - includes *Common_emme4bank.fi*
- Begin loop for origins: 1, Maxzones
 - call **DATA3** – open matrix files, read data for O-D pair, close files
 - includes *Common_emme4bank.fi* & *Common_emme4bank.fi*
 - call **TRIPS** - does the simulation of choices from origin
 - Calls AUTCST – compute auto operating costs in cents
 - Calls INCDIS – obtain income of tripmaker (for home-based: start with zonal median income at destination rather than origin; for non-home-based: used average [median?] income for Chicago metro area)
 - Calls PRKCST – obtain cost of parking for highway trip for the CBD
 - Calls PRK CBD – determine if zone has special parking structure
 - Calls TRAPP – determine transit approach times
 - Calls ADIST – determine approach distances for first/last modes using data in DISTR
 - Calls DISGEN – calls appropriate subroutine based on distribution parameter #3 in DISTR
 - Calls LINE – for straight-line distribution
 - Calls RNORM – for normal distribution