Task 1.8 Journey Time Surveys

Processing of Car Journey Time Surveys

Having confirmed and checked the data, the objective is to create a database which will enable graphical and tabular comparisons between surveyed (observed) and modelled times in the form of cumulative times along routes.

Inputs

Survey database

Definition of routes for model validation (these may be different from the routes as defined for surveying purposes) and segments between landmarks (key intersections) within each

Definition of modelled time periods

Processing

1) Confirm that extent of data provided is as specified by the contractor (verify data file format, contents and number of runs).

1) Through data reviews, confirm that data meets contractual requirements, including:

   ■ the minimum number of runs for each route in each time period as specified and at appropriate intervals;

   ■ the range of times in each case is suitable for determining an average.

2) Process the data into times for the segments and routes defined for validation purposes.

3) For each segment within each route tabulate, for each direction and modelled time period:

   ■ the mean, maximum, minimum and standard deviation times,

   ■ the times to two standard deviations,

   ■ distance (from x-y co-ordinates at 3 second intervals).

4) Tabulate the above data into cumulative times and distance along each route.

5) Develop spreadsheet(s) to compare surveyed (observed) and modelled times and speeds, both cumulatively and for complete routes.

6) Develop interface with EMME/2 network coding, such as a link-tagging system which can identify both the overall route and the sequence of links (or segments) within the route. This needs to be done in conjunction with a procedure (macro) for extracting times from the model.

Outputs

Processed survey database and validation spreadsheet.

Note.

Processing of Public Transport Travel Time Data

Bus travel times are required for calibrating relationships between bus and private vehicle times on various types of bus routes and services.

Inputs

Database of bus times as extracted from ARTA Real Time system

Correspondence table of bus stops IDs and x-y co-ordinates (from ARTA)

Definition of routes and segments in private vehicle travel time surveys

Processing

1) Confirm that the data provided is as specified from ARTA.

2) Allocate x-y co-ordinates to bus stops and/or intersections.

3) Process the data into times for each bus service on segments and routes that correspond with those for private vehicles, grouping them into start times that correspond with the modelled periods: AM peak, Interpeak and PM peak.

Outputs

Database of bus times corresponding to private vehicle routes.

Note.