



New Internet Data Retrieval System (iDRS) User Guide

Prepared by:
Data Management Group
Department of Civil & Mineral Engineering
University of Toronto

Transportation Tomorrow Survey TTS

The TTS surveys were conducted every 5 years since 1986 with the latest survey conducted in 2016. iDRS allows access to spatially aggregated TTS data. The data can be queried at the regional, planning district and traffic zone level for the entire survey area and the ward level for the Greater Toronto and Hamilton Area (GTHA). The data tables can be queried at the household, person and trip level with transit trips stored separately.

How to use iDRS

Query Criteria page

Select your tabulation, data type and survey year(s) for query and submit

Tabulation

There are three types of tabulation

- (1) Cross Tabulation – Produces a 2 or 3 dimensional table. Useful for origin-destination matrices or queries where you want more than single numbers.
- (2) Frequency Distribution – Calculates the number of occurrences and expanded total for each category in a selected attribute
- (3) Record Count – Totals the number of survey records that meet the query criteria

Data Type

There are four datatypes. Data can be queried at the level of the:

- (1) Household
- (2) Person
- (3) Trip
- (4) Transit

Transit is a subset of the trips dataset giving more route detail on the transit specific trips.

Survey Year

A list of the years for which survey data is available pops up in the text box and one or multiple years can be selected.

Query Form page

A Query Criteria page will be generated based on your previous selections.

Frequency Distribution – Select the variable you wish to query. Two values are returned for every applicable attribute of this variable. The first value is the number of records in the database and the second is the expanded total. Filters can be added to refine your query.

For instance, if you want to get the breakdown of the genders of persons who live in Toronto then:

- Select Gender of Person as your variable
- Add a filter of Regional Municipality of household and set to 1 or Toronto
- Run Query

Your query gives you values for each individual gender possibility in the database namely female, male and unknown.

Record Count - This type of data extraction produces two numbers per selected survey year. The first number is the total number of observations (record count) in the database that match the query and the second number is the expanded total.

Cross Tabulation – This produces two or three-dimensional tables as the result. The three dimensions are row, column and table. Row and column variables are required to create any output using this method whereas the table dimension is optional. If a table variable is entered then the number of tables generated is determined by the number of unique values for the table variable selected.

For example if you want a Regional Origin Destination matrix by Trip Purpose for the morning peak period from the Trip datatype you:

- Select Region of Origin as the row variable
- Select Region of Destination as the column variable
- Select Trip Purpose as the table variable
- Add a filter of Start Time of Time = 600-859
- Run Query

Your output will be an OD matrix for each Trip Purpose.

Filters are available for use with any tabulation type to refine your query.

To filter survey records by selection criteria:

- Click the Add button under Filter Selection
- Select a data field
- Enter codes to be included in the extraction.
- Use '-' to specify a range and ',' to separate codes.
- Do not use '()' to separate codes.

- The default operator for selecting values in a specific filter is **IN** but the operator **NOT IN** is available to exclude values from the filter.
- The default operator for connecting multiple filters is **AND** but the **OR** operator is also available
- If a combination of **ANDs** and **ORs** is used the checkboxes can be used to act as brackets and the bracketed filters will be shown as indented.

Grouping

The grouping option is available if the type of extraction selected is cross tabulation. It allows the user to group the attribute codes of row, column and table dimensions. There are two types of grouping: manual grouping and applying a grouping file.

Manual grouping

The user can manually group the attributes for the dimension in the space provided. For example if the row dimension was Primary travel mode of trip and the user wished to group the modes so that all transit modes were grouped and Auto Driver and Auto Passenger were grouped in the row grouping box the user would add (D, P) (B, G, J) for the two groups with D and P being the codes that represent the Auto Driver and Auto Passenger modes and B, G, J representing the transit modes. All groups are contained within brackets and please note **that any attribute not specified in the groups will not be included in the output.**

Grouping Files

An aggregation or grouping file can be applied when using a large number of groups. The aggregation file is a two-column, comma-delimited text file. The original attribute values are placed in the first column and the renamed (grouping) values in the second column. This file can be generated using Microsoft Excel and saved in '.csv' format and uploaded using the 'browse' button under group attributes. A series of check boxes are then shown from which you then choose the dimension(s) to which you wish to apply the grouping.

Load

iDRS keeps track of the last 10 queries you have done for each specific tabulation, datatype and year. Click on the 'Click to Select Load' textbox to see a list of these saved queries then click on the specific query you wish to load and then finally click on the load button. This will cause your other fields to be filled with the variables, attributes and filters you used in that query.

For Cross Tabulation queries

Expansion Factor can be set to ON or OFF by clicking on the green button. When Expansion factor is on the results will be the expanded TTS data. When Expansion factor is set to off the results will give you the number of records for each attribute in the database.

There are **two output format options** which can be selected prior to running the query. The user can select either “Comma-delimited table” or “Column format”. Comma delimited table gives you a separate matrix which reflects the dimensions of the variables chosen for each year selected. Column format gives you a three column format with the columns being row variable, column variable and results.

Output Format

On executing the query the results will be shown at the bottom of the page. If more than one survey year is selected, a set of tables is produced for each survey year regardless of the type of tabulation. The “Select All” button highlights the text output to facilitate copying and pasting into another document. “Save All” opens a dialog box where the user can name and save the output as a text file at any location.

Access through iDRS needs to be used in conjunction with the latest description of the data files, which is documented in the publication ‘2016 Transportation Tomorrow Survey: Data Guide’, available at:

<http://www.dmg.utoronto.ca/reports/ttsreports.html>