Cordon Count Data Retrieval System (CCDRS) Users Manual

Prepared for the Transportation Information Steering Committee

By the Data Management Group University of Toronto Joint Program in Transportation

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1.0 INTRODUCTION

For a number of years, regional transportation agencies in the Greater Toronto Area (GTA) have undertaken a regular program of traffic count collection on the area's road and transit systems. This program is known as the Cordon Count Program.

The dataset derived from this program, involving the compilation of traffic classification data, is a rich source of valuable data which can be used for a wide range of transportation planning projects.

The Data Management Group (DMG) serves as a centralized location for the storage of Cordon Count data from five Regional municipalities: Durham, Halton, Peel, York and the City of Toronto. The dataset currently covers detailed information for forty-three cordon count programs from the five regions spanning a time period from 1975 to 2001.

The data are made available to government agencies, consultants and the public via the Cordon Count Data Retrieval System (CCDRS). CCDRS is a tool used to provide access to Cordon Count data via the Internet. It was created and is managed by the DMG.

Using the CCDRS, queries can be performed on the Cordon Count database to extract information such as how many transit vehicles crossed the York-Toronto boundary in 24 hours or how many personal automobiles with one passenger passed the station at Lakeshore Road East of Winston Churchill Boulevard traveling eastbound in 15-minute intervals during the morning peak period.

This manual attempts to teach users the basics of running a successful query in CCDRS.

2.0 HISTORY

The initial attempts to create CCDRS were undertaken in 1994 to demonstrate the benefits of centrally storing the Cordon Count data to be accessed by regional staff. These benefits include a reduction in the time taken by any regions' staff to access data and a consistent manner of presentation for the data provided by different regions.

The first operational prototype of CCDRS was on a Windows 3.x based client server architecture. The data retrieval system (FoxPro and Mapinfo) ran on a local 486DX microcomputer operating under OS/2. Each user remotely accessed the computer via a high speed modem line and remotely controlled the operation of the machines via RLINK; a software package which allowed the remote user's screen to effectively become the screen of the central computer. A custom interface was written in FoxPro for Windows at the DMG to access the data. The interface was very user-friendly and permitted the user to interactively set up search criteria. To assist in the set-up of the search criteria, graphical assistance was provided through a link to MapInfo which allowed the user to map station information. The results were offered in either ASCII or dBase formats¹.

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¹ Data Management Group Annual Report 1997 available at http://www.jpint.utoronto.ca/PDF/doc73.html

Through this system, cordon count data could be extracted by specifying the region, count year, time interval, vehicle type, location by screenlines, count stations, etc. Although this system showed the potential for central storage and usage of this data, the software configuration was too limiting due to cost, speed and incompatibility with other data retrieval systems. There was also a restriction that only one user could access the data at a time.

In 1998, work began on providing access to the Cordon Count data via web access with only limited success at first. That system was destined to become the current CCDRS system but initial attempts were limited by computer hardware and software issues. The current CCDRS was made available for access to participating agencies in May 1999. It was made available to all consultants and other persons requesting access in August 2003.

3.0 ACCESS

To gain access to the CCDRS, users must first fill out and return a Request For Access form to the Data Management Group. This form is available at http://www.jpint.utoronto.ca/CCDRS_connect_form.pdf. Once this form is received at the DMG, the user is issued a username and a password for CCDRS.

4.0 LOGIN

Once a password has been issued, users can proceed to the CCDRS web page via a link on the DMG web page or by going directly to https://www.jpint.utoronto.ca/ccdrs/index.html. Figure 1 shows the login authentication page for users of CCDRS. Here the user enters a valid user ID and password and is given access to a CCDRS session. If a user is idle for a specific period of time their session will expire. All query results show the login time and users name.



DATA MANAGEMENT GROUP

CCDRS - Cordon Count Data Retrieval System
Enter your username and password below in order to access the database. NOTE: All sessions expire after a given period of time. If CCDRS reports that your session has expired, simply re-enter your login information. Username: Password: Submit
Notice
Please read the following information carefully before using this website. Using this website indicates that you have read and fully accept the following Terms of Use. If you do not agree to these Terms of Use, do not use the site.
 The User acknowledges that the Data Management Group and its funding agencies own the copyright of any data available on this website. The User will not permit any other person to use his/her account. The Data Management Group has attempted to ensure the accuracy of the data provided but given the inherent limitations in the collection of the data, no warranty is provided that the data is indeed accurate or that the data is suitable for the purposes of the user. The data is provided "as is" and the Data Management Group makes no warranty, either expressed or implied, including but not limited to, warranties of merchantability and fitness for a particular purpose. In no event will the University of Toronto, The Joint Program in Transportation Data Management Group or any of its funding agencies be liable for any indirect, special, consequential or other damages however caused. The User will attribute credit for any data derived on this website to the Data Management Group as appropriate.

Figure 1 - CCDRS Login page

5.0 CORDON COUNT DATABASE SELECTION

After the login information has been verified the 'Cordon Count Databases' screen shown in Figure 2 greets the user. This page provides a list of regions and databases available to the user and allows the user to select the region, year and the geographic level (screenline or station) at which data is required. This is the first step in formulating the CCDRS query.

This page also contains links to other pages, which give the user additional information on the stations and the screenlines available, maps of the screenline locations and a list of the

classifications counted each year by each region in the Cordon Count. This information is available by clicking on the links associated with the word "here".

Cordon Count Databases						
⊙ Durham	O Halton	O Peel	O Toronto	O York		
-	-	-	□ 1975	-		
-	-	-	□ 1977	-		
-	-	-	□ 1979	-		
-	-	□ 1981	□ 1981	-		
-	-	□ 1983	□ 1983	-		
-	□ 1985	□ 1985	□ 1985	□ 1985		
-	□ 1987	□ 1987	□ 1987	□ 1987		
□ 1989	□ 1989	□ 1989	□ 1989	□ 1989		
□ 1991	□ 1991	□ 1991	□ 1991	□ 1991		
-	-	□ 1993	□ 1993	□ 1993		
-	□ 1995	□ 1995	□ 1995	□ 1995		
□ 1996	-	-	-	-		
□ 1998	□ 1998	□ 1998	□ 1998	□ 1998		
2001	2001	2001	2001	2001		

Extract data for:	
All Stations	O Specific Stations
O All Screenlines	O Specific Screenlines

Click here to download station and screenline descriptions.

Click $\underline{\text{here}}$ to view a detailed description of all databases. Hold down 'Shift' and click to download to your PC.



INSTRUCTIONS:

Counts can be selected for multiple years. Only one region can be selected.

To summarise all data by stations or screenlines, select 'All Stations' or 'All Screenlines'. If you require data for specific stations or screenlines, select 'Specific Stations' or 'Specific Screenlines' and a list of stations/screenlines will be displayed on the next page.

Please send comments to info@jpint.utoronto.ca

Last updated: January 14, 2000.

Figure 2 - Select Database

5.1 Selecting the Region and Year

The first step towards completing a CCDRS query is to select the region for which the query is required. Only one region can be selected at a time. This limitation was imposed because of the variation in data classification between regions. If the user wishes to complete queries on more than one region then each region must be queried individually.

After the region is selected, the user can then select the year or years for which the query is required. Unlike selecting the region, the selection of multiple years is allowed. For individual regions each year corresponds to a separate table in the overall Cordon Count database.

The user should however be very careful when selecting multiple years as this can lead to a limitation in the stations and categories shown available to be queried on the subsequent query page. When the user selects more than one year, only the stations and categories common to all selected years will be displayed as available for query. This is due to a limitation inherent in the CCDRS software. This can lead the user to a mistaken belief that various categories or stations are not available for selection in a particular year.

For example, if the 1995, 1998 and 2001 databases are selected for a region and a particular category was counted and is available only in 1998 and 1995, and not in 2001 then that category will not show up on the page generated to query all three databases concurrently. This could give the user the mistaken belief that the category does not exist in any of the three years.

It is hence advised that until the user is more familiar with the CCDRS query process and the available categories that care is exercised or the user refrains from conducting queries on multiple years.

5.2 Selecting Level of Summary

The Cordon Count data can be summarised at either the station or screenline level. A station is defined as an individual location at which traffic counts were collected, e.g. Yonge Street North of Steeles Avenue. A screenline is defined as a collection of stations, e.g. the City of Toronto's northern boundary is composed of a number of stations along Steeles Ave including stations at Yonge Street, Keele Street, Bathurst Street and some other streets which intersect Steeles Avenue.

CCDRS gives the user four options to choose from when selecting the required summary; all stations, specific stations, all screenlines and specific screenlines.

If the user is interested in only a few stations or screenlines then the Specific Stations or Specific Screenlines option can be used. This option will provide a list of the available screenlines and stations for the region selected from which the user can choose only those stations/screenlines which are required.

The 'All Screenlines' and 'All Stations' option will give the user output from all stations and screenlines counted for each selected year.

Once the region, year and level of summary are selected the user can click on Continue to take them to the second page of the query form.

6.0 SPECIFY EXTRACTION CRITERIA

6.1 Specify Extraction

The next page generated in the CCDRS allows the user to specify the extraction criteria. This page will vary slightly in content depending on the user's previous selection of region, year, and level of summary. The main content of the page will however remain the same and this page allows the user to fine-tune the query by selecting the direction, time period, time interval and classification of data needed.

Figures 3, 4 and 5 show sample pages for extracting the criteria. Figure 3 shows a sample page for a query where "Specific Stations" was chosen as the level of summary, Figure 4 shows a sample page where "Specific Screenlines" was chosen as the level of summary and Figure 5 shows a sample page where All Stations was chosen as the level of summary.

At the top of each of these pages, the user is shown which database(s) have been selected and a link is also given to Comments and Information where the user can find additional information about the databases selected. For example in Figure 5, both the 1995 and 1998 databases were chosen for the Region of Halton and links are provided to information on both databases. The information on these linked pages includes the time periods for which counts were performed and information pertaining to vehicle or person categories.

6.2 Select Specific Stations or Screenlines

Figures 3 and 4 show sample pages generated when the Specific Screenlines or Specific Stations option was chosen. In these cases, a selection box appears near the top of the Specify Extraction Criteria page from which the user can choose the required stations or screenlines.

6.2.1 Specific Stations

In the case where the specific stations option was previously chosen, the selection box contains the stations available for the particular database as shown in Figure 3. The stations can be chosen by clicking and highlighting the stations required for query from the selection box. Multiple stations can be selected by holding the Ctrl key while selecting the stations.

The stations list is ordered by station number and the direction of the traffic flow at that station with the letters E,W,N,S representing the directions East, West, North and South. Descriptions of the station location are also provided along with the numbers.

Please note that only those stations counted for all of the year(s) chosen will be shown in the selection box hence as previously mentioned the user should be extremely careful when performing queries on multiple years.

6.2.2 Selected Screenlines

In the case where Specific Screenlines was chosen, the selection box contains the screenlines available for a particular region, as shown in Figure 4. The screenlines required can be selected from the selection box. Multiple screenlines can be selected by holding down the Ctrl key while selecting the stations.

A button labelled 'Show Selected Stations' is also provided. When one highlights the screenlines required, this button can be clicked to provide a yellow pop-up box which shows all the stations which comprise the selected screenline.

The list of screenlines given in the selection box is a list of all screenlines historically counted for the particular region regardless of whether they were counted in the year chosen or not. The stations shown in the popup box listing the stations which comprise the chosen screenlines is also a list of all historical stations which have been affiliated with that screenline. Hence it is possible that after completing a query it is found that fewer stations than listed in the popup box were actually tallied to generate the screenline totals. This occurs because some of the stations listed in the popup box may not have been counted for a particular year.

The screenline list is generally ordered by station number and the direction of the traffic flow at that station with the letters E,W,N,S representing the directions East, West, North and South and I and O representing Inbound and Outbound traffic respectively. The exception is screenlines for the Region of Durham where the direction is not part of the screenline number. Descriptions of the screenline locations are also provided along with the numbers.

6.2.3 All Stations or Screenlines

If all stations or screenlines was selected as the level of summary there will be no selection box on the page generated to specify your extraction criteria. A typical page for this is shown in Figure 5.

Selected Database(s): Toronto - 01 Comment and Information for: Select Stations- press 'Ctrl' for multiple selections 10N CENTRE AVE S OF DUNDAS 10S CENTRE AVE S OF DUNDAS 11N CHESTNUT ST S OF DUNDAS 11S CHESTNUT ST S OF DUNDAS 12N ELIZABETH ST S OF DUNDAS ST 12S ELIZABETH ST S OF DUNDAS ST 13N BAY ST S OF DUNDAS ST 13S BAY ST S OF DUNDAS ST 14N YONGE ST S OF DUNDAS ST Report Traffic Volume by: Total Volume ☑ North ☑ South ☑ East ☑ West O 15 minute intervals 30 Minute Intervals: Time Coverage: On the hour O 15 min. offset 60 Minute Intervals: Counts are recorded in 15-minute ENDING times. On the hour O 15 min. offset For 9:00 a.m. to 3:00 p.m., enter '901' and '1500'. O 30 min. offset O 45 min. offset Calculated peak flows: Start Time: 501 End Time: 2400 O 1-hr peak O 2-hr peak O 3-hr peak Peak period calculation is based on the sum of all counts chosen below. Vehicular Counts: ☑ Total Vehicles (tot_veh) = auto + cab + truck + bus (+ streetcar) \square Total Autos (tot_aut) = auto(1...4) + taxi(1...4) ☐ Total Trucks (tot_trk) = truck(light + medium + heavy + with trailer) ☐ Total Transit (tot_trn) = TTC bus + TTC streetcar + regional bus + GO bus + other bus ☐ Total Persons (tot_per) = auto driver + passenger(auto + taxi + bus + rail) \square Total Auto (tot_aut_per) = n * auto(n=1...4) + (n-1) * taxi(n=1...4) ☐ Total Local Transit (tot_loc_per) = passenger(TTC bus + streetcar + subway) ☐ Total Cross-Boundary Transit (tot_reg_per) = passenger(regional bus + other bus + GO bus + GO rail) Individual Categories ☐ Auto Occupancy 1 ☐ Auto 2 ☐ Auto 3 ☐ Auto 4 ☐ Cab 1 (driver and no passengers) ☐ Cab 2 (1 passenger) ☐ Cab 3 (2 passengers) ☐ Cab 4 (3 passengers) ☐ Light Truck ☐ Medium Truck ☐ Heavy Truck ☐ Truck with Trailer ☐ TTC Bus ☐ TTC Bus Occupancy ☐ TTC Streetcar ☐ TTC Streetcar Occupancy ☐ TTC Subway ☐ TTC Subway Occupancy Regional Bus Regional Bus Occupancy Other Bus ☐ Other Bus Occupancy GO Rail GO Rail Occupancy ☐ GO Bus GO Bus Occupancy School Bus ☐ School Bus Occupancy ☐ Bicycle ☐ i.j nodes for 1996 EMME/2 Network ☐ i,j nodes for 2001 EMME/2 Network Submit Reset

Specify Extraction Criteria

Figure 3 - Extraction Criteria page for Selected Stations

Specify Extraction Criteria Selected Database(s): York - 95 Comment and Information for: Select Screenlines - press 'Ctrl' for multiple selections 1-I York-Simcoe cordon (inbound) 1-O York-Simcoe cordon (outbound) 2-I York-Durham cordon (inbound) 2-O York-Durham cordon (outbound) 3-I York-Peel cordon (inbound) 3-O York-Peel cordon (outbound) 4-I York-Toronto cordon (inbound) 4-O York-Toronto cordon (outbound) 5-I South York cordon (inbound) Show selected stations Direction: Report Traffic Volume by: Total Volume ☑ North ☑ South ☑ East ☑ West O 15 minute intervals 30 Minute Intervals: Time Coverage: On the hour O 15 min. offset 60 Minute Intervals: Counts are recorded in 15-minute ENDING times. On the hour O 15 min. offset For 9:00 a.m. to 3:00 p.m., enter '901' and '1500'. O 30 min. offset O 45 min. offset Calculated peak flows: Start Time: 501 End Time: 2400 O 2-hr peak O 3-hr peak O 1-hr peak Peak period calculation is based on the sum of all counts chosen below. Vehicular Counts: ☑ Total Vehicles (tot_veh) = auto + cab + truck + bus \square Total Autos (tot_aut) = auto(1...6) + cab(1...3) + light truck (1...3) ☐ Total Trucks (tot_trk) = truck(medium + heavy) ☐ Total Transit (tot_trn) = school bus + municipal bus + GO bus + other bus Person Counts: ☐ Total Persons (tot_per) = auto + cab + truck + bus $\label{eq:total_autoper} \ \square \ \ Total\ \ Auto\ \ Persons\ \ (tot_aut_per) = n\ \ ^{\phi}\ \ auto(n=1...6) + n\ \ ^{\phi}\ \ cab(n=1...3) + n\ \ ^{\phi}\ \ light\ \ truck(1...3)$ ☐ Total Transit Persons (tot_tm_per) = passenger(municipal bus + GO bus + GO rail + other bus + school bus) Individual Categories ☐ Auto Occupancy 1 ☐ Auto 2 ☐ Auto 4 ☐ Auto 3 ☐ Auto 5 ☐ Auto 6+ ☐ Cab 1 (Driver & no passengers) ☐ Cab 2 (1 passenger) Cab 3+ ☐ Bicycle ☐ Pedestrian ☐ Light Truck Occupancy 1 \square Light Truck 2 ☐ Light Truck 3 ☐ Medium Truck ☐ Heavy Truck ☐ Municipal Bus ☐ Municipal Bus Occupancy Other Bus ☐ Other Bus Occupancy ☐ School Bus ☐ School Bus Occupancy GO Bus GO Bus Occupancy GO Rail Occupancy

Figure 4 - Extraction Criteria page for Selected Screenlines

Submit Reset

Specify Extraction Criteria

Selected Database(s): Halton - 95 98

Comment and Information for:

<u>95</u> <u>98</u>

Direction:	Report Traffic Volume by:				
	● Total Volume				
☑ North ☑ South ☑ East ☑ West	O 15 minute intervals				
	30 Minute Intervals:				
Time Coverage:	On the hour O 15 min. offset				
Counts are recorded in 15-minute ENDING times.	60 Minute Intervals:				
For 9:00 a.m. to 3:00 p.m., enter '901' and '1500'.	On the hour O 15 min. offset				
	O 30 min. offset O 45 min. offset				
Start Time: 501 End Time: 2400	Calculated peak flows:				
	O 1-hr peak O 2-hr peak Peak period calculation is based on the sum of all				
	counts chosen below.				
Vehicular Counts:					
☐ Total Vehicles (tot_veh) = auto + truck + bus (-	+ cab + motocycle)				
\square Total Autos (tot_aut) = auto(14)+cab(13)	• /				
☐ Total Trucks (tot_trk) = truck(light + medium +	- heavy)				
Person Counts:					
Total Auto (tot_aut_per)= n*auto(n=14) + n*	cab(n=13)				
Individual Categories					
☐ Auto Occupancy 1	☐ Auto 2				
☐ Auto 3	☐ Auto 4+				
□ Cab 1	☐ Cab 2				
□ Cab 3+	☐ Light Truck				
☐ Medium Truck	☐ Heavy Truck				
☐ Municipal Bus	☐ Municipal Bus Occupancy				
☐ GO Bus	☐ GO Bus Occupancy				
☐ School Bus	☐ School Bus Occupancy				
□ Bicycle					
☐ i,j nodes for 1996 EMME/2 Network	☐ i,j nodes for 2001 EMME/2 Network				
St	ubmit Reset				

Figure 5 - Extraction Criteria page for All Screenlines or All Stations

6.3 Direction

CCDRS gives the user the option to specify which directions the data are required for. By default all directions are selected in the checkboxes provided. If necessary, the user can uncheck the checkboxes related to the directions which are not required for the query. Each valid direction for a specific station chosen will generate a line of output on the results page.

6.4 Time

Users are given the option to select the time period, for which Cordon Count data are required, by selecting a start time and end time. The time entered is based on the 24hr clock. The default start time in CCDRS is set to 0500 hrs and the default end time is set as 2400 hrs. Counts in the database are stored by 15 minute ending times therefore if counts are required for 9:00a.m to 3:00p.m then 901 is entered for the start time and 1500 for the end time.

This is a bit different from the way in which time is considered in another DMG product, the Internet Data Retrieval System (iDRS), which is used to extract TTS data. When using the iDRS it is assumed that TTS respondents, who report their start times, round these times to the nearest 15 minutes and hence if one wishes to query trips for the morning peak period of 6:00am to 9:00am the times 6:00am to 8:59am are used. Respondents will report both 8:59am and 9:01am as 9:00am. Since 6:00am is already included in the query then 9:00am is excluded to balance out the over-reporting on the hour.

Users who are familiar with the iDRS should therefore note the difference in the way times are considered in the CCDRS and be cautious when entering the times for their queries.

If a mistake is made in entering the time in CCDRS, for example a user enters 654 instead of 645 or 903 instead of 930 then CCDRS rounds down the time entered to the nearest 15 minute ending time. So 654 would be rounded down to 645 and 903 would be rounded down to 900.

The results generated for all CCDRS queries will contain the start time and end time for the data queried along with the actual counts requested so if a mistake is made in specifying the time for the query it can usually be seen in the start and end times listed with the results.

6.5 Report Traffic Volume By

This option allows the user to specify the time interval into which the time period specified will be divided. There are several options available:

Total volume: This is the default and gives the total volumes for the time period selected. For example if the time period 6:01am to 9:00am is chosen and the total volumes is chosen as the time interval the output data gives all data totalled for the 6-9am period.

15 minute intervals: The cordon count data will be returned broken into 15-minute volumes. For example if a time period of 7:01am to 8:00am is chosen and the report traffic volume option of 15 minutes is used, the results will return individual traffic volumes for 7:01-7:15am, 7:16-7:30am, 7:31-7:45am and 7:46-8:00am.

30 minute intervals: The cordon count data will be returned broken into 30-minute volumes. There are two options for this selection: on the hour or 15 minute offsets. On the hour will give the 30 minute intervals starting on the hour or half hour, and the 15 minute offset will give the 30 minute intervals offset 15 minutes or 45 minutes from the hour.

For example, if data is required for 701 to 830 and the 30-minute interval is selected starting on the hour, the query will return volumes for 7:01-7:30am, 7:31-8:00am and 8:01-8:30am. If 30 minute interval with 15 minute offset is chosen, volumes are given for 6:46-7:15am, 7:16-7:45am, 7:46-8:15am and 8:16-8:45am.

In the example given above when using the 15-minute offset the times shown for the first and last segment do not correspond with the time period selected. These times show the 30-minute period in which the data selected lies but not the actual limits of the data. Therefore 6:46am to 7:15am in the above example actually contains only the volumes for 7:01am to 7:15am as opposed to the volumes starting at 6:46am.

60 minute intervals: The cordon count data will be returned broken into 1-hour volumes. There are four options for this selection: On the hour, 15 minute offset, 30 minute offset and 45 minute offset. On the hour will give the interval starting on the hour, 15 minute offset set starts the hour interval on the 15 minute offset, 30 minute offset starts the hour at the half hour offset and 45 minute offset starts the hour at the 45 minute mark.

Calculated Peak Flows: Using this option the CCDRS takes the chosen time period, the selected stations or screenlines and the traffic categories chosen and calculates the peak 1,2 or 3 hour flow as selected.

The peak hour calculations are based on the selected vehicle counts, person counts and individual categories sections summed over all selected stations or screenlines. If the peak flow is required for more than one individual count or vehicle type it is better to calculate the peak flow for each category separately. Also if the peak flow is required for individual stations or screenlines which may have no correlation it is better to calculate them separately.

6.6 Vehicular Counts

The option exists in CCDRS to select vehicular count totals instead of querying the individual counts and then totalling them afterwards. The available count totals usually include; Total Vehicles, Total Autos, Total Transit and Total Trucks but vary slightly from region to region and from year to year. The user can select as many or as few of these totals as desired in the same query.

The count categories which were combined to create these totals are shown in blue text next to the Totals in CCDRS. Figure 3 shows that Total Vehicles for the Toronto 2001 database was calculated by adding all auto, cab, truck, bus and streetcar categories while Total Trucks were calculated by adding together the categories of light, medium and heavy trucks and heavy trucks with trailers.

The individual categories added to create these total categories may vary by region and users must take this into consideration when comparing pre-defined totals. For example Figure 3 shows that Total Transit for the Toronto 2001 database is calculated by summing the TTC bus, TTC streetcar, Regional bus, GO bus and Other bus categories while Figure 4 shows that the

Total Transit for the York Region 1995 database is calculated by summing the school bus, municipal bus, GO bus and other bus categories.

Users should be careful when selecting multiple years because when a Vehicular Counts category does not have the same formula for all the years chosen it is not made available for query in CCDRS.

6.7 Person Counts

This section in CCDRS provides the user the option of selecting totals for the person categories. The available persons totals usually include; Total Persons, Total Auto Persons and Total Transit Persons but may vary slightly from year to year and region to region.

The user can select as many or as few of these totals as desired in the same query. As with the Total Vehicle counts the count categories which were summed to create these totals are shown in blue next to the respective totals category. The individual categories that make up these totals may vary by region and year.

Users should be cautious when selecting multiple years because when a Persons Counts category does not have the same formula for all the years chosen it is not made available for query in CCDRS.

6.8 Individual Categories

The user can also select the individual categories which make up the cordon count database. The categories available vary by region and year but usually include:

- Auto and Cab categories giving the number of persons in the vehicle
- Various truck types e.g., light trucks, medium trucks and heavy trucks
- Transit vehicles covering various bus types and Go Rail trains
- Transit occupancy for the transit vehicles listed

A list of the categories available for each region by year is available in Appendix A as well as from a link on the first page of the CCDRS.

As mentioned previously users should be cautious when querying multiple years as any category not counted in all of the years selected will not be shown available for selection on this page.

Users can select as many or as few of the categories as is necessary for the query.

6.9 EMME/2 Nodes

EMME/2 is a transportation planning software package which is used extensively in the Greater Toronto Area. In CCDRS when the Level of Summary is chosen as Specific Stations or All Stations, users are given an option to add the EMME/2 i and j nodes for the stations selected to be queried. This allows the data to be formatted for entry into the EMME/2 software for further use. I and j nodes are not available for all cordon count stations and in the case where the

nodes do not exist in the EMME/2 network CCDRS returns zeros for the i and j nodes. I and j nodes are available for both the 1996 and 2001 EMME/2 network.

7.0 OUTPUT

After the user has made the selections of the data to be queried the query is run by clicking the submit button. The query usually takes a few moments to run and the user is then taken to a page similar to Figure 6. The results are linked to this page and they can be saved to a local computer by holding the shift key while selecting the link.

All CCDRS output is comma delimited and easily imported into spreadsheet programs such as MS Excel and Quattro Pro. Figure 7 shows an example of the output obtained after it has been slightly edited in MS Excel.

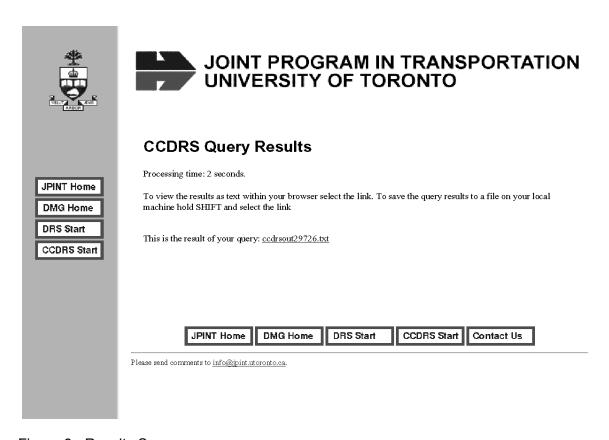


Figure 6 - Results Screen

User: CCDRS User

Time: Tue Jun 15 09:47:06 2004

Database: peel95

station	dir	records	start time	end time	tot_veh	tot_aut	tot_aut_per	auto1	truck_I
				0400				4047	
1E	E	64	531	2130	2918	2593	3383	1917	212
1W	W	64	531	2130	2801	2458	3142	1881	194
2E	Ε	64	531	2130	9249	7587	9265	6124	666
2W	W	64	531	2130	9764	8160	9647	6834	693
3E	E	64	531	2130	1296	1080	1389	843	108
3W	W	64	531	2130	1303	1043	1332	820	122
902W	W	64	531	2130	0	0	0	0	0
903E	Ε	64	531	2130	0	0	0	0	0
903W	W	64	531	2130	0	0	0	0	0
914E	E	64	531	2130	0	0	0	0	0
914W	W	64	531	2130	0	0	0	0	0
916N	N	64	531	2130	0	0	0	0	0
916S	S	64	531	2130	0	0	0	0	0

Figure 7 - Sample Output

8.0 EXAMPLES

The following examples are given in order to illustrate the usage of CCDRS.

8.1 Example 1

Find the total vehicles passing all stations in the 2001 York database for the morning peak period 6:00:am to 9:00:am and attach the i,j nodes for the 2001 EMME/2 network to the data.

Figure 8 shows the first page of the query. Here York is selected as the region of interest, the 2001 database is selected as the year required and the level of summary is All Stations.

Figure 9 shows the second page of the query. A quick look at this page shows the following:

- The time coverage was changed to have a starting time of 601 and an end time of 900 so that we get data only for the morning peak period.
- Traffic volume is reported as Total volume which is the default.
- Total Vehicles was chosen as the vehicular count, no person count was chosen and no individual categories were chosen.
- At the bottom of the page the i,j nodes for the 2001 EMME/2 network were selected.

Figure 10 shows the partial results of this query. On examination it is noted that the results include the i and j nodes, station number, direction of traffic flow, number of records in the database counted to get the required result and the start and end times of the count period. It can be seen that some of the stations have a zero value for the i and j nodes. This occurs when the station is not coded in the EMME/2 network.

Cordon Count Databases							
O Durham	O Halton	O Peel	O Toronto	⊙ York			
-	-	-	□ 1975	-			
-	-	-	□ 1977	-			
-	-	-	□ 1979	-			
-	-	□ 1981	□ 1981	-			
-	-	□ 1983	□ 1983	-			
-	□ 1985	□ 1985	□ 1985	□ 1985			
-	□ 1987	□ 1987	□ 1987	□ 1987			
□ 1989	□ 1989	□ 1989	□ 1989	□ 1989			
□ 1991	□ 1991	□ 1991	□ 1991	□ 1991			
-	-	□ 1993	□ 1993	□ 1993			
-	□ 1995	□ 1995	□ 1995	□ 1995			
□ 1996	-	-	-	-			
□ 1998	□ 1998	□ 1998	□ 1998	□ 1998			
2001	2001	2001	2001	2 001			

Extract data for:					
All Stations All Screenlines	O Specific Stations O Specific Screenlines				

Click here to download station and screenline descriptions.

Click $\underline{\text{here}}$ to view a detailed description of all databases. Hold down 'Shift' and click to download to your PC.

Continue	Reset

INSTRUCTIONS:

Counts can be selected for multiple years. Only one region can be selected.

Figure 8 - Example 1 - Screen 1

Specify Extraction Criteria

Selected Database(s): York - 01

Comment and Information for:

01

Direction:	Report Traffic Volume by:				
☑ North ☑ South ☑ East ☑ West	Total Volume				
E North E South E East E West	O 15 minute intervals				
Time Covered	30 Minute Intervals:				
Time Coverage:	O On the hour O 15 min. offset 60 Minute Intervals:				
Counts are recorded in 15-minute ENDING times.	On the hour O 15 min. offset				
For 9:00 a.m. to 3:00 p.m., enter '901' and '1500'.	O 30 min. offset O 45 min. offset				
Start Time: 601 End Time: 900	Calculated peak flows:				
Start Time.	O 1-hr peak O 2-hr peak O 3-hr peak				
	Peak period calculation is based on the sum of all counts chosen below.				
	counts chosen below.				
Vehicular Counts:					
☑ Total Vehicles (tot_veh) = auto + cab + truck +	bus + bicycles				
$ \Box \text{ Total Autos (tot_aut)} = \text{auto}(16) + \text{cab}(13) $	~				
Total Trucks (tot_trk) = truck(medium + heavy	•				
☐ Total Transit (tot_trn) = school bus + municipal	bus + GO bus + other bus				
☐ Total Persons (tot_per) = auto + cab + truck + b ☐ Total Auto Persons (tot_aut_per) = n * auto(n= ☐ Total Transit Persons (tot_trn_per) = passenger					
Individual Categories					
☐ Auto Occupancy 1	☐ Auto 2				
□ Auto 3	☐ Auto 4				
□ Auto 5	☐ Auto 6+				
☐ Cab 1 (Driver & no passengers)	☐ Cab 2 (1 passenger)				
□ Cab 3+	Bicycle				
☐ Light Truck Occupancy 1	☐ Light Truck 2				
☐ Light Truck 3	☐ Medium Truck				
☐ Heavy Truck	☐ Heavy Truck with Trailer				
☐ Municipal Bus	☐ Municipal Bus Occupancy				
☐ Other Bus	☐ Other Bus Occupancy				
☐ School Bus	☐ School Bus Occupancy				
☐ GO Bus	☐ GO Bus Occupancy				
GO Rail Occupancy					
☐ i,j nodes for 1996 EMME/2 Network	☑ i,j nodes for 2001 EMME/2 Network				
	abmit Reset				

Figure 9 - Example 1 - Screen 2

User: CCDRSUser

Time: Fri Jun 25 09:18:04 2004

Database: york01

Direction: N S E W

INODE_01	JNODE_01	station	dir	records	start time	end time	tot_veh
42281	81057	101N	N	12	601	900	81
81057	42281	101S	S	12	601	900	433
40281	80048	102N	Ν	12	601	900	57
80048	40281	102S	S	12	601	900	305
40192	80049	103N	Ν	12	601	900	12
80049	40192	103S	S	12	601	900	20
41541	80051	104N	Ν	12	601	900	35
80051	41541	104S	S	12	601	900	166
40191	80052	105N	Ν	12	601	900	250
80052	40191	105S	S	12	601	900	872
41314	41315	106N	Ν	12	601	900	18
41315	41314	106S	S	12	601	900	28
41955	41317	107N	Ν	12	601	900	70
41317	41955	107S	S	12	601	900	30
42318	42219	108N	Ν	12	601	900	9
42219	42318	108S	S	12	601	900	21
41779	82066	109N	Ν	12	601	900	3898
82067	41777	109S	S	12	601	900	11959
0	0	232E	Ε	12	601	900	8
0	0	232W	W	12	601	900	16
0	0	233E	Ε	12	601	900	14
0	0	233W	W	12	601	900	12
0	0	234E	Ε	12	601	900	11
0	0	234W	W	12	601	900	15
91079	91080	191N	Ν	12	601	900	0
91080	91079	191S	S	12	601	900	0
41942	31068	202E	Ε	12	601	900	84
31068	41942	202W	W	12	601	900	945
41707	40505	203E	Ε	12	601	900	1170
40505	41707	203W	W	12	601	900	3279
41817	41915	204E	Ε	12	601	900	25
41915	41817	204W	W	12	601	900	564

Figure 10 - Example 1 - Results

8.2 Example 2

Find the total number of trucks and the number of automobiles by occupancy for the City of Toronto's northern boundaries in the 1993 and 1995 Toronto database and report back the data by 15-minute intervals for the time period 7am to 9am.

Figure 11 shows the first page of the query. Toronto is chosen as the region of interest and the years are chosen as 1993 and 1995. The required counts are only for a specific screenline which makes up Toronto's northern boundary therefore Specific Screenlines is chosen as the level of summary required.

Figure 12 shows the second page of the query. A quick look at this page shows the following:

- The selection box shows a list of all of the screenlines in the Toronto database.
 Screenlines 1002l (inbound) and 1002O (outbound) are chosen as they represent the northern boundary of Toronto
- The time period required is entered as 7:01-9:00am
- 15 minute intervals is chosen as the option by which traffic volume is reported
- Under Vehicle counts Total Trucks is chosen
- Under the individual categories Auto1, Auto2......Auto6 are chosen

Figure 13 shows the results of the query. The results are presented in separate tables for 1993 and 1995. Counts are given by 15-minute interval, showing the start and end time of each time period, by direction of traffic flow for each screenline with the number of stations and number of records listed.

Cordon Count Databases										
ODurham	O Halton	O Peel	⊙ Toronto	O York						
-	-	-	□ 1975	-						
-	-	-	□ 1977	-						
-	-	-	□ 1979	-						
-	-	□ 1981	□ 1981	-						
-	-	□ 1983	□ 1983	-						
-	□ 1985	□ 1985	□ 1985	□ 1985						
-	□ 1987	□ 1987	□ 1987	□ 1987						
□ 1989	□ 1989	□ 1989	□ 1989	□ 1989						
□ 1991	□ 1991	□ 1991	□ 1991	□ 1991						
-	-	□ 1993	1 993	□ 1993						
-	□ 1995	□ 1995	☑ 1995	□ 1995						
□ 1996	-	-	-	-						
□ 1998	□ 1998	□ 1998	□ 1998	□ 1998						
2001	2001	2001	2001	□ 2001						

Extract data for:	
O All Stations O All Screenlines	O Specific Stations • Specific Screenlines
O All Screenines	Specific Screeninies

Click here to download station and screenline descriptions.

Click <u>here</u> to view a detailed description of all databases. Hold down 'Shift' and click to download to your PC.

Continue	Reset
----------	-------

INSTRUCTIONS:

Counts can be selected for multiple years. Only one region can be selected.

Figure 11 - Example 2 - Screen 1

Specify Extraction Criteria Selected Database(s): Toronto - 93 95 Comment and Information for: Select Screenlines - press 'Ctrl' for multiple selections 1001I CITY WEST BOUNDARY (INBOUND) 1001O CITY WEST BOUNDARY (OUTBOUND) 1002I CITY NORTH BOUNDARY (INBOUND) 1002O CITY NORTH BOUNDARY (OUTBOUND) 1003I CITY EAST BOUNDARY (INBOUND) 1003O CITY EAST BOUNDARY (OUTBOUND) 10041 HUMBER RIVER (INBOUND) 10040 HUMBER RIVER (INBOUND) 10051 CNR NEWMARKET SUBDIVISION (INBOUND) Show selected stations Report Traffic Volume by: Direction: O Total Volume ☑ North ☑ South ☑ East ☑ West ● 15 minute intervals 30 Minute Intervals: Time Coverage: On the hour O 15 min. offset 60 Minute Intervals: Counts are recorded in 15-minute ENDING times. On the hour O 15 min. offset For 9:00 a.m. to 3:00 p.m., enter '901' and '1500'. O 30 min. offset O 45 min. offset Calculated peak flows: Start Time: 701 End Time: 900 O 1-hr peak O 2-hr peak Peak period calculation is based on the sum of all ☐ Total Vehicles (tot_veh) = auto + cab + truck + bus (+ streetcar) \square Total Autos (tot_aut) = auto(1...6) + taxi(1...6) ☑ Total Trucks (tot_trk) = truck(light(1+2+3) + medium + heavy) ☐ Total Transit (tot_trn) = TTC bus + TTC streetcar + regional bus + GO bus + other bus ☐ Total Persons (tot_per) = auto driver + passenger(auto + taxi + bus + rail) \square Total Auto (tot_aut_per) = n * auto(n=1...6) + (n-1) * taxi(n=1...6) ☐ Total Local Transit (tot_loc_per) = passenger(TTC bus + streetcar + subway) ☐ Total Cross-Boundary Transit (tot_reg_per) = passenger(regional bus + other bus + GO bus + GO rail) Individual Categories Auto Occupancy 1 Auto 2 ☑ Auto 3 Auto 4 ☑ Auto 5 ☑ Auto 6+ ☐ Cab 1 (driver and no passengers) ☐ Cab 2 (1 passenger) Cab 3 (2 passengers) ☐ Cab 4 (3 passengers) ☐ Cab 5 (4 passengers) ☐ Cab 6 (5 passengers) ☐ Light Truck Occupancy 1 ☐ Light Truck 2 ☐ Light Truck 3 ☐ Medium Truck ☐ Heavy Truck ☐ TTC Bus ☐ TTC Streetcar ☐ TTC Bus Occupancy ☐ TTC Streetcar Occupancy ☐ TTC Subway ☐ TTC Subway Occupancy Regional Bus Regional Bus Occupancy Other Bus ☐ Other Bus Occupancy ☐ GO Rail GO Rail Occupancy ☐ School Bus ☐ Bicycle School Bus Occupancy Submit Reset

Figure 12 - Example 2 - Screen 2

User: CCDRS user

Time: March 25 09:00:00 2004

Database: toro93

screen		No of		start	end							
line	dir	stations	records	time	time	tot_trk	auto1	auto2	auto3	auto4	auto5	auto6
1002I	S	44	44	701	715	1013	5489	1063	99	18	0	0
1002I	S	42	42	716	730	1071	6236	1202	111	17	0	0
1002I	S	43	43	731	745	1133	7330	1465	151	44	0	0
10021	S	44	44	746	800	1090	7878	1435	160	41	0	0
1002I	S	43	43	801	815	994	7959	1417	173	75	0	0
10021	S	42	42	816	830	996	7801	1405	192	111	0	0
10021	S	43	43	831	845	1001	7270	1145	171	76	0	0
10021	S	42	42	846	900	1086	6460	944	82	44	0	0
10020	Ν	42	42	701	715	689	3136	574	78	42	0	0
10020	Ν	42	42	716	730	754	3786	629	91	38	0	0
1002O	Ν	42	42	731	745	803	4364	615	76	26	0	0
1002O	Ν	42	42	746	800	818	5184	730	79	23	0	0
1002O	Ν	42	42	801	815	806	5190	613	78	16	0	0
10020	Ν	42	42	816	830	784	5233	623	62	16	0	0
10020	Ν	42	42	831	845	778	5074	622	80	17	0	0
10020	N	42	42	846	900	772	5122	596	63	18	0	0

Figure 13 - Example 2 - Results

User: CCDRS user

Time: March 25 09:00:00 2004

Database: toro95

screen line	dir	No of stations	records	start time	end time	tot_trk	auto1	auto2	auto3	auto4	auto5	auto6
10021	S	42	42	701	715	950	6109	971	87	17	0	0
10021	S	40	40	716	730	1060	7102	1180	120	26	0	0
10021	S	41	41	731	745	1069	7914	1327	148	36	0	0
10021	S	42	42	746	800	963	8286	1336	150	51	0	0
10021	S	41	41	801	815	1134	8459	1480	205	82	0	0
10021	S	40	40	816	830	937	8270	1316	172	67	0	0
10021	S	41	41	831	845	975	7477	1146	138	54	0	0
10021	S	40	40	846	900	998	7233	1005	93	15	0	0
10020	Ν	40	40	701	715	816	3833	623	95	35	0	0
10020	Ν	40	40	716	730	916	4354	714	79	50	0	0
10020	Ν	40	40	731	745	897	4734	608	79	31	0	0
10020	Ν	40	40	746	800	984	5659	701	87	39	0	0
10020	Ν	40	40	801	815	797	5142	693	60	21	0	0
10020	Ν	40	40	816	830	755	5843	747	94	21	0	0
10020	Ν	40	40	831	845	828	5496	672	85	25	0	0
1002O	Ν	40	40	846	900	933	5723	724	60	26	0	0

Figure 13 - Example 2 - Results con't

8.3 Example 3

Extract information on the total vehicles and the individual truck categories for Durham screenline 03 South of the Hwy. 401 (Whitby) for the time period 6am to 8am reported in half hour segments for the Year 2001.

Figure 14 shows the first page of the query. The region is chosen as Durham and the year as 2001. Specific Screenlines is chosen as the level of summary required.

Figure 15 shows the second page of the query. The following can be seen in this figure:

- The selection box shows a list of all of the screenlines in the Durham database. Screenlines 03 is chosen
- The time period required is entered as 6:01-8:00am
- 30 minute intervals on the hour is chosen as the option to report traffic volume by
- Under Vehicle counts Total Vehicles is chosen
- Under the individual categories Light Truck, Medium Truck, Heavy Truck and Truck with trailer are chosen

Figure 16 shows the results of the query. Counts are given by 30-minute intervals, showing the start and end time of each time period, by direction of traffic flow for the screenline, with the number of stations and number of records listed.

Cordon Count Databases										
Durham	O Halton	O Peel	O Toronto	O York						
-	-	-	□ 1975	-						
-	-	-	□ 1977	-						
-	-	-	□ 1979	-						
-	-	□ 1981	□ 1981	-						
-	-	□ 1983	□ 1983	-						
-	□ 1985	□ 1985	□ 1985	□ 1985						
-	□ 1987	□ 1987	□ 1987	□ 1987						
□ 1989	□ 1989	□ 1989	□ 1989	□ 1989						
□ 1991	□ 1991	□ 1991	□ 1991	□ 1991						
-	-	□ 1993	□ 1993	□ 1993						
-	□ 1995	□ 1995	□ 1995	□ 1995						
□ 1996	-	-	-	-						
□ 1998	□ 1998	□ 1998	□ 1998	□ 1998						
☑ 2001	2001	2001	□ 2001	2001						

Extract data for:	
O All Stations	O Specific Stations
O All Screenlines	Specific Screenlines

Click here to download station and screenline descriptions.

Click $\underline{\text{here}}$ to view a detailed description of all databases. Hold down 'Shift' and click to download to your PC.



INSTRUCTIONS:

Counts can be selected for multiple years. Only one region can be selected.

Figure 14 - Example 3 - Screen 1

Selected Database(s): Durham - 01 Comment and Information for: Select Screenlines - press 'Ctrl' for multiple selections 01 South of Hwy. 401 (Pickering) 02 South of Hwy. 401 (Ajax) 03 South of Hwy. 401 (Whitby) 04 South of Hwy. 401 (Whitby) 05 South of Hwy. 401 (Oshawa West) 06 North of Highway 2 (Pickering) 07 North of Highway 2 (Ajax) 08 North of Highway 2 (Whitby) 09 North of Highway 2 (Coshawa West) Show selected stations Report Traffic Volume by: Direction: O Total Volume ☑ North ☑ South ☑ East ☑ West O 15 minute intervals 30 Minute Intervals: Time Coverage: On the hour 60 Minute Intervals: Counts are recorded in 15-minute ENDING times. On the hour O 15 min. offset For 9:00 a.m. to 3:00 p.m., enter '901' and '1500'. O 30 min. offset O 45 min. offset Calculated peak flows: Start Time: 601 End Time: 800 O 1-hr peak O 2-hr peak O 3-hr peak Peak period calculation is based on the sum of all counts chosen below. Vehicular Counts: ☑ Total Vehicles (tot_veh) = auto + cab + truck + bus \square Total Autos (tot_aut) = auto(1..4) + cab(1..4) ☐ Total Trucks (tot_trk) = truck(light + medium + heavy + truck with trailer) ☐ Total Transit (tot_trn) = municipal bus + GO bus + other bus Person Counts: ☐ Total Persons (tot_per) = auto driver + passenger(auto + taxi + bus) \square Total Auto Persons (tot_aut_per) = n * auto(n=1..4)+ (n-1) * cab(n=1..4) ☐ Total Transit Persons (tot_tm_per) = passenger(municipal bus + GO bus + other bus + GO rail) Individual Categories ☐ Auto Occupancy 1 ☐ Auto 2 ☐ Auto 4+ ☐ Auto 3 ☐ Cab 1 (driver and no passengers) ☐ Cab 2 (1 passenger) ☐ Cab 3 (2 passengers) ☐ Cab 4+ (3+ passengers) ☑ Light Truck Medium Truck ☑ Heavy Truck Truck with Trailer ☐ School Bus ☐ School Bus Occupancy ☐ Municipal Bus ☐ Municipal Bus Occupancy GO Rail Occupancy GO Bus Other Bus GO Bus Occupancy ☐ Other Bus Occupancy Submit Reset

Specify Extraction Criteria

Figure 15 - Example 3 - Screen 2

User: CCDRS user

Time: March 25 10:01:56 2004

Database: durh01

screen line	dir 	No of stations	records	start time	end time	tot_veh	truck_l	truck_m	truck_h	truck_tr
3	N	3	6	601	630	260	9	5	42	2
3	N	3	6	631	700	519	26	7	60	3
3	N	3	6	701	730	660	36	24	44	8
3	N	3	6	731	800	767	46	31	59	7
3	S	3	6	601	630	591	32	9	20	5
3	S	3	6	631	700	1245	44	14	26	6
3	S	3	6	701	730	1371	52	17	18	8
3	S	3	6	731	800	1143	51	13	29	9

Figure 16 - Example 3 - Results

8.4 Example 4

Extract information on the total vehicles and the individual truck categories for Durham screenline 3 South of the Hwy. 401 (Whitby) for the time period 6am to 8am reported in half hour segments for the Year 2001. Offset the half hour segments by 15 minutes.

This query is the same as the query in Example 3 except that the time segments are offset by 15 minutes.

The first page of this query is identical to that of example 3 shown in figure 14. Figure 17 shows the second page of the query. This page is almost identical to that shown in figure 15 except the 30-minute interval with the 15-minute offset is chosen as the option for reporting traffic volume.

Figure 18 shows the results of the query. Counts are given by 30-minute interval, showing the start and end time of each time period, by direction of traffic flow for the screenline with the number of stations and number of records listed. These results can be compared with those in Figure 16 where the volume is reported by the 30-minute interval with no offset.

In Figure 18, even though our time period selected was from 6:01am to 8:00am, the first time segment listed is 5:46am to 6:15am. This is because we chose to report the counts by half hour offset by 15 minutes. The actual time period chosen in the query starts and ends on the hour so in order to get the 15-minute offset at the start, the query calculates the counts from 6:01-6:15am but lists it as a 30-minute interval starting at 5:46am.

Similarly at the end of our time period instead of listing the end time as 8:00am it is listed as 8:15am. In this case the query has calculated the counts for the time period 7:46-8:00am but lists them in the offset 30-minute interval 7:46-8:15am. Users should be aware that although the counts appear to include data outside the time period selected it actually does not.

Specify Extraction Criteria Selected Database(s): Durham - 01 **Comment and Information for:** Select Screenlines - press 'Ctrl' for multiple selections 01 South of Hwy. 401 (Pickering) 02 South of Hwy. 401 (Ajax) 03 South of Hwy. 401 (Whitby) 04 South of Hwy. 401 (Oshawa West) 05 South of Hwy. 401 (Oshawa East) 06 North of Highway 2 (Pickering) 07 North of Highway 2 (Ajax) 08 North of Highway 2 (Whitby) 09 North of Highway 2 (Oshawa West) Show selected stations Direction: Report Traffic Volume by: O Total Volume ☑ North ☑ South ☑ East ☑ West O 15 minute intervals 30 Minute Intervals: Time Coverage: On the hour ● 15 min. offset 60 Minute Intervals: Counts are recorded in 15-minute ENDING times. On the hour O 15 min. offset For 9:00 a.m. to 3:00 p.m., enter '901' and '1500'. O 30 min. offset O 45 min. offset Calculated peak flows: Start Time: 601 End Time: 800 O 1-hr peak O 2-hr peak O 3-hr peak Peak period calculation is based on the sum of all counts chosen below. Vehicular Counts: ☑ Total Vehicles (tot_veh) = auto + cab + truck + bus \square Total Autos (tot_aut) = auto(1..4) + cab(1..4) ☐ Total Trucks (tot_trk) = truck(light + medium + heavy + truck with trailer) ☐ Total Transit (tot_trn) = municipal bus + GO bus + other bus Person Counts: ☐ Total Persons (tot_per) = auto driver + passenger(auto + taxi + bus) \square Total Auto Persons (tot_aut_per) = n * auto(n=1..4)+ (n-1) * cab(n=1..4) ☐ Total Transit Persons (tot_trn_per) = passenger(municipal bus + GO bus + other bus + GO rail) Individual Categories ☐ Auto Occupancy 1 ☐ Auto 2 ☐ Auto 3 ☐ Auto 4+ ☐ Cab 2 (1 passenger) ☐ Cab 1 (driver and no passengers) ☐ Cab 3 (2 passengers) ☐ Cab 4+ (3+ passengers) Light Truck Medium Truck Heavy Truck Truck with Trailer ☐ School Bus ☐ School Bus Occupancy ☐ Municipal Bus ☐ Municipal Bus Occupancy GO Rail Occupancy ☐ GO Bus GO Bus Occupancy Other Bus ☐ Other Bus Occupancy Submit Reset

Figure 17 - Example 4 - Screen 2

User: CCDRS user

Time: March 25 10:03:23 2004

Database: durh01

screen line	dir 	No of stations	records	start time	end time	tot_veh	truck_1	truck_m	truck_h	truck_tr
3	N	3	3	546	615	114	4	2	25	0
3	N	3	6	616	645	387	22	8	43	5
3	N	3	6	646	715	650	31	14	62	7
3	N	3	6	716	745	699	39	29	43	7
3	N	3	3	746	815	356	21	14	32	1
3	S	3	3	546	615	246	13	4	12	1
3	S	3	6	616	645	873	40	15	18	8
3	S	3	6	646	715	1338	44	11	23	4
3	S	3	6	716	745	1375	55	17	26	12
3	S	3	3	746	815	518	27	6	14	3

Figure 18 - Example 4 - Results

8.5 Example 5

Extract information from the 1989 database on the total vehicles, the individual truck categories and the municipal bus for Peel stations 140E and 140W (Highway 401 at the Etobicoke Creek) for the peak hour occurring between the time period 7am to 6pm.

Figure 19 shows the first page of the query. Here the region is chosen as Peel, the year as 1989 and the data summary is Specific Stations.

Figure 20 shows the second page of the query. A quick look at this page shows the following:

- In the selection box station 140E and 140W are selected
- The time period required is entered as 701 to 1800
- Under vehicle count total vehicle was chosen
- 1-hr peak is selected as the traffic volume by which to report the query
- Under the individual categories Light Truck, Medium Truck, Heavy Truck and Municipal Bus are chosen.

Figure 21 shows the results of the query. The peak hour is listed along with the counts requested. The calculation of peak hour is based on the sum of the counts at both stations. If a peak hour calculation is prepared for only one of these stations, the results might be different since this calculation is based on only the selected station instead of all of the stations.

Cordon Count Databases										
ODurham	O Halton	• Peel	O Toronto	O York						
-	-	-	□ 1975	-						
-	-	-	□ 1977	-						
-	-	-	□ 1979	-						
-	-	□ 1981	□ 1981	-						
-	-	□ 1983	□ 1983	-						
-	□ 1985	□ 1985	□ 1985	□ 1985						
-	□ 1987	□ 1987	□ 1987	□ 1987						
□ 1989	□ 1989	☑ 1989	□ 1989	□ 1989						
□ 1991	□ 1991	□ 1991	□ 1991	□ 1991						
-	-	□ 1993	□ 1993	□ 1993						
-	□ 1995	□ 1995	□ 1995	□ 1995						
□ 1996	-	-	-	-						
□ 1998	□ 1998	□ 1998	□ 1998	□ 1998						
2001	2001	2001	□ 2001	2001						

Extract data for:		
O All Stations O All Screenlines	Specific StationsSpecific Screenlines	

Click here to download station and screenline descriptions.

Click $\underline{\text{here}}$ to view a detailed description of all databases. Hold down 'Shift' and click to download to your PC.

INSTRUCTIONS:

Counts can be selected for multiple years. Only one region can be selected.

Figure 19 - Example 5 - Screen 1

Specify Extraction Criteria

Selected Database(s): Peel - 89

Comment and Information for:

89

Select Stations- press 'Ctrl' for multiple selections

140E Highway 401 at the Etobicoke Creek ** Core Lanes ** (EB)
140W Highway 401 at the Etobicoke Creek ** Core Lanes ** (WB)
141E Q.E.W. East of Highway 10 (EB)
141W Q.E.W. East of Highway 10 (WB)
142E Highway 401 East of 9th Line (Halton) (EB)
142W Highway 401 East of 9th Line (Halton) (WB)
143E Highway 401 East of Highway 10 (EB)
143W Highway 401 East of Highway 10 (WB)
147N Winston Churchill Blvd. South of South Sheridan Way (NB)

Direction:	Report Traffic Volume by:
☑ North ☑ South ☑ East ☑ West	O Total Volume
North South E East E West	O 15 minute intervals
	30 Minute Intervals:
Time Coverage:	On the hour 15 min. offset
Counts are recorded in 15-minute ENDING times.	60 Minute Intervals:
For 9:00 a.m. to 3:00 p.m., enter '901' and '1500'.	On the hour O 15 min. offset
	O 30 min. offset O 45 min. offset
Start Time: 701 End Time: 1800	Calculated peak flows:
	● 1-hr peak O 2-hr peak O 3-hr peak Peak period calculation is based on the sum of all
	counts chosen below.
Vehicular Counts:	
☑ Total Vehicles (tot_veh) = auto + cab + truck +	bus
☐ Total Autos (tot_aut) = auto(16)	
☐ Total Trucks (tot_trk) = truck(light + medium -	heavy)
☐ Total Transit (tot_trn) = municipal bus + GO bu	us + other bus
Person Counts:	
Total Persons (tot_per) = auto driver + passeng	er(auto + cab + bus + rail)
☐ Total Auto (tot_aut_per) = n * auto(n=16) ☐ Total Transit (tot_trn_per) = passengers (munic	single bug + GO bug + GO roil + other bug)
10tal Hansit (tot_tin_per) = passengers (intuine	ipai ous + GO ous + GO iaii + ouiei ous)
Individual Categories	
☐ Auto Occupancy 1	☐ Auto 2
□ Auto 3	☐ Auto 4
□ Auto 5	☐ Auto 6+
☑ Light Truck	☑ Medium Truck
☑ Heavy Truck	☑ Municipal Bus
☐ Muncipal Bus Occupancy	☐ GO Bus
☐ GO Bus Occupancy	☐ Other Bus
☐ Other Bus Occupancy	GO Rail Occupancy
☐ i,j nodes for 1996 EMME/2 Network	☐ i,j nodes for 2001 EMME/2 Network

Figure 20 - Example 5 - Screen 2

User: CCDRS user

Time: March 25 12:26:57 2004

Database: peel89

Peak period: 1531 to 1630

station	dir	records	start_time	end_time	tot_veh	truck_l	truck_m	truck_h	mun_bus
140E	E	4	1531	1630	6004	294	228	436	0
140W	W	4	1531	1630	5207	238	206	371	0

Figure 21 - Example 5 - Results

8.6 Example 6

Select data for Total Autos, Total Persons, Total Auto Persons and Total Transit Persons for all westbound traffic on all screenlines from the Halton 2001 database for the time period 5am to 9am.

Figure 22 shows the first page of the query. Halton is chosen as the region of interest and 2001 is chosen as the year to query. All Screenlines is chosen as the level at which data is required.

Figure 23 shows the second page of the query. This figure shows:

- The north, south, and east directions are deselected leaving only the west selected.
- The time period is chosen as 501 to 900.
- The traffic volume is reported by Total volume
- The required totals are selected

The results of the query are shown in Figure 24. The screenline name, direction, the no. of stations that make up the screenline and the number of records used to compile the data are listed along with the start and end time of the period queried and the counts for the specific categories chosen.

C	ordon C	ount D	atabases	
ODurham	Halton	O Peel	O Toronto	O York
-	-	-	□ 1975	-
-	-	-	□ 1977	-
-	-	-	□ 1979	-
-	-	□ 1981	□ 1981	-
-	-	□ 1983	□ 1983	-
-	□ 1985	□ 1985	□ 1985	□ 1985
-	□ 1987	□ 1987	□ 1987	□ 1987
□ 1989	□ 1989	□ 1989	□ 1989	□ 1989
□ 1991	□ 1991	□ 1991	□ 1991	□ 1991
-	-	□ 1993	□ 1993	□ 1993
-	□ 1995	□ 1995	□ 1995	□ 1995
□ 1996	-	-	-	-
□ 1998	□ 1998	□ 1998	□ 1998	□ 1998
□ 2001	☑ 2001	2001	□ 2001	2001
Extract data for:				

Click here to download station and screenline descriptions.

Click $\underline{\text{here}}$ to view a detailed description of all databases. Hold down 'Shift' and click to download to your PC.

O Specific Stations

O Specific Screenlines



INSTRUCTIONS:

Counts can be selected for multiple years. Only one region can be selected.

Figure 22 - Example 6 - Screen 1

O All Stations

• All Screenlines

Specify Extraction Criteria

Selected Database(s): Halton - 01

Comment and Information for:

01

Direction:	Report Traffic Volume by:
□ North □ South □ East ☑ West	● Total Volume
□ North □ South □ East □ West	O 15 minute intervals
Transaction of the state of the	30 Minute Intervals:
Time Coverage:	On the hour O 15 min. offset
Counts are recorded in 15-minute ENDING times.	60 Minute Intervals:
For 9:00 a.m. to 3:00 p.m., enter '901' and '1500'.	On the hour O 15 min. offset O 30 min. offset O 45 min. offset
G W. FOA D. 1 W. 1000	Calculated peak flows:
Start Time: 501 End Time: 900	O 1-hr peak O 2-hr peak O 3-hr peak
	Peak period calculation is based on the sum of all
	counts chosen below.
Vehicular Counts:	
Total Vehicles (tot veh) = auto + truck + bus (+	+ cab + motocycle)
☐ Total Autos (tot_aut) = auto(14)+cab(13)	out interesting
☐ Total Trucks (tot_trk) = truck(light + medium +	- heavy)
☐ Total Transit (tot_trn) = municipal bus + GO bu	as + intercity bus
Person Counts:	
☐ Total Persons (tot_per) = driver(auto + taxi + tr ☐ Total Auto (tot_aut_per)= n*auto(n=14) + n*a	
☐ Total Transit (tot_trn_per) = passenger(municip	
Individual Categories	
☐ Auto Occupancy 1	☐ Auto 2
☐ Auto 3	☐ Auto 4+
☐ Cab 1	☐ Cab 2
☐ Cab 3+	☐ Light Truck
☐ Medium Truck	☐ Heavy Truck
☐ Municipal Bus	☐ Municipal Bus Occupancy
☐ GO Bus	☐ GO Bus Occupancy
☐ Intercity Bus	☐ Intercity Bus Occupancy
☐ School Bus	☐ School Bus Occupancy
Su	ibmit Reset

Figure 23 - Example 6 - Screen 2

User:CCDRS user

Time: March 25 12:46:17 2004

Database: halt01 Direction: W

screen line	dir	No of stations	records	start time	end time	tot_aut	tot_per	tot aut ner	tot_trn_per
C-ACI	W	1	12	601	900	535	771	570	5
C-ACO	W	2	24	601	900	489	685	548	4
C-BUI	W	2	24	601	900	9597	13907	9657	947
C-BUO	W	2	24	601	900	8996	11739	9791	188
C-GEI	W	2	24	601	900	977	1570	1099	0
C-GEO	W	3	36	601	900	429	772	489	0
C-MII	W	4	48	601	900	6826	9637	7583	55
C-MIO	W	5	60	601	900	7728	10887	8429	104
C-OAI	W	6	72	601	900	11277	15299	12484	892
C-OAO	W	2	24	601	900	9597	13907	9657	947
N-H1N	W	1	12	601	900	390	505	424	4
S-A2W	W	2	24	601	900	489	685	548	4
S-A4W	W	1	12	601	900	535	771	570	5
S-F1W	W	4	48	601	900	5294	7424	5822	51
S-F2W	W	6	72	601	900	8654	15711	10928	156
S-G2W	W	3	36	601	900	429	772	489	0
S-G4W	W	3	36	601	900	1158	1846	1304	0
S-L2W	W	2	24	601	900	8996	11739	9791	188
S-L3W	W	5	60	601	900	10781	15130	11883	206
S-L4W	W	3	36	601	900	10559	15294	10784	947
S-L5E	W	1	12	601	900	8609	11576	8609	554
S-L5W	W	5	60	601	900	5919	8306	7008	279
S-L6W	W	8	96	601	900	13292	18092	14808	1092
S-M2W	W	5	60	601	900	7728	10887	8429	104
S-M4W	W	4	48	601	900	6826	9637	7583	55

Figure 24 - Example 6 - Results

APPENDIX A List of Vehicle and Person categories available in CCDRS by region and year

				Durham	1					Halton			
Auto 2 Auto 3 Auto 4 Auto 4 Auto 4 Auto 4 Auto 5 Auto 6 Auto 64 Auto 64 Auto 64 Auto 64 Auto 67 Auto 68 Auto 69 Auto 60 Auto 69 Au		1989				2001	1985	1987	1989	1991	1995	1998	2001
Auto 3 Auto 4 Auto 4 Auto 4 Auto 4 Auto 4 Auto 6 4 Auto 6 9 Auto 6	. ,	У	У	у	у	У	У	У	У	у	У	у	У
Auto 4 Auto 5 Auto 5 Auto 16 Auto 64 Auto 5 Cab 1 (driver and no passengers) Cab 2 (T passenger) Cab 3 (2 passengers) Cab 4 (3 passengers) Cab 4 (3 or more passengers) Cab 4 (3 or more passengers) Cab 5 (4 passengers) Cab 6 (5 passengers) Cab 6 (5 passengers) Cab 6 (5 passengers) Cab 6 (6 passengers) Cab 6 (7 passengers) Cab 6 (8 passengers) Cab 6 (9 passengers) C													У
Auto 44		У	У	У	У	У					У	у	У
Auto 6 Auto 64 Cab 1 (driver and no passengers) Cab 2 (1 passengers) Cab 3 (2 passengers) Cab 3 (2 passengers) Cab 4 (3 passengers) Cab 4 (3 passengers) Cab 4 (3 passengers) Cab 6 (5 passengers) Light Truck with 1 Occupancy Light Truck with 2 Occupancy Medium Truck Ught Truck with 3 + Occupancy Medium Truck Vy y y y y y y y y y y y y y y y y y y							У	У	У	У			
Auto 6+ Cab 1 (driver and no passengers) Cab 2 (1 passenger) Vy y y y y y Cab 2 (1 passengers) Cab 4 (3 passengers) Cab 4 (3 passengers) Cab 4 (3 passengers) Cab 4 (3 passengers) Cab 5 (4 passengers) Cab 5 (4 passengers) Cab 6 (5 passengers) Cab 6 (6 passengers) Cab 6 (7 passengers		У	У	У	У	У			.,		У	У	У
Cab 1 (driver and no passengers) Cab 2 (1 passenger) V y y y y y Cab 3 (2 passengers) Cab 4 (3 passengers) Cab 4 (3 or more passengers) Cab 5 (4 passengers) Cab 5 (5 passengers) Cab 6 (5 passengers)													
Cab 2 (1 passenger) Cab 3 (2 passengers) Cab 3 (2 or more passengers) Cab 4 (3 passengers) Cab 4 (3 passengers) Cab 4 (3 passengers) Cab 5 (4 passengers) Cab 5 (4 passengers) Cab 6 (5 passengers) Cab 6 (6 passengers) Cab 6 passengers) Cab 6 passengers) Cab 6 (6 passengers) Cab 6 passengers) Cab 6 passengers Cab 7 passengers Cab 6 passengers Cab 6 passengers Cab 6 passengers Cab 6 passen		. V	V	V	V	V	У	У	У	у	V	V	V
Cab 3 (2 passengers) y				_		_		-					y V
Cab 3 + (2 or more passengers) Cab 4 + (3 passengers) Cab 4 + (3 or more passengers) Cab 5 (4 passengers) Cab 5 (5 passengers) Light Truck with 1 Occupancy Light Truck with 2 Occupancy Light Truck with 2 Occupancy Light Truck with 3 + Occupancy Medium Truck Heavy Truck Yellow Yello											у	У	- y
Cab 4 (3 passengers) V		y	,	,	,	,					v	v	V
Y											-	,	
Cab 5 (4 passengers) Cab 6 (5 passengers) Cab 7 passengers		V	v	Ιv	V	v							
Ight Truck with 1 Occupancy		,	,		,								
Light Truck with 1 Occupancy Light Truck with 3 Occupancy Medium Truck													
Light Truck with 1 Occupancy Light Truck with 3+ Occupancy Medium Truck Medium Truc		У	У	У	У	У	У	У	У	У	У	У	У
Ight Truck with 3+ Occupancy Wedium Truck Y													
Medium Truck	ght Truck with 2 Occupancy												
Heavy Truck													
Truck with Trailer		У	У	У	у	У	У	У	У	У	У	у	у
Aggregate Truck		У	У	у	у	У	У	У	у	у	У	у	у
V		У	У	у	у	У							
School Bus Occupancy													
Small School Bus Small School Bus Occupancy				_	_	_							У
Small School Bus Occupancy		У	У	У	У	У					У	у	У
Large School Bus Large School Bus Occupancy ITC Bus ITC Bus Occupancy ITC Streetcar ITC Streetcar Occupancy ITC Subway ITC Subway Occupancy Municipal Bus Municipal Municipal Municipal Municipal Municipal Municipal Municipal Mu													
Large School Bus Occupancy TTC Bus TTC Bus Occupancy TTC Streetcar TTC Streetcar Occupancy TTC Subway TTC Subway Occupancy Municipal Bus Municipal Municipal Municipal Municipal Municipal Municipal Municipal Munic							-						
TTC Bus Occupancy													
TTC Streetcar							-						
TTC Streetcar Occupancy TTC Subway TTC Subway TTC Subway Occupancy Municipal Bus Municipal Bus Occupancy Inter-regional Bus Inter-regional Bus Intercity Bus Occupancy Regional Bus Regiona								-					
TTC Streetcar Occupancy													
TTC Subway Occupancy								-					
TTC Subway Occupancy Municipal Bus								 					
Municipal Bus													
Municipal Bus Occupancy					٧	У	У	V	V	V	V	У	У
Inter-regional Bus Occupancy	unicipal Bus Occupancy												y
Intercity Bus	ter-regional Bus						У	У	У	у			
Intercity Bus Occupancy	ter-regional Bus Occupancy						У	У	У	У			
Y Y Y Y Y Y Y Y Y Y												у	У
Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y												У	У
Y									_				
So Bus Occupancy							У	У	У	У			
GO Rail						_							У
Y					у	У					У	у	У
Other Bus y)./*	27	-	-					
Other Bus Occupancy y					,			37	37	37	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
Motorcycle				_					_		y		
Sicycle	. ,	У	У	У	У	у —	y	у	y	У		V	
Pedestrians	_						 	l					
Total Vehicles include all vehicles exclude bicycles Total Persons exclude taxi & truck drivers include taxi & truck drivers, exclude cyclists Counting Period - Start final Period - Start include all vehicles, exclude bicycles include taxi & truck drivers, exclude cyclists 6:00 6:00 6:00 6:00 6:00 7:00 7:00 7:00							-					,	
Total Persons exclude taxi & truck drivers include taxi & truck drivers, exclude cyclists Counting Period - Start 6:00 6:00 6:00 6:00 7:00		n clude	all vehi	cles			in clude	all vehi	cles ex	clude bi	cvcles		-
Counting Period - Start 6:00 6:00 6:00 6:00 6:00 7:00 7:00 7:00					vers						,	clists	
						6:00							6:00
1													
Note For 1998 GO rail occupancy obtained Prior to 1993, auto included													
from GO taxi e.g. auto1 include					,	-		, -	-		auto1 ii	ncluded	taxi
transit * with driver & no passengers		transit				*		ver & no	passer				
Some stations might end early or late		Some s	tations	might en	nd early	or late							

	Peel									
	1981	1983	1985	1987	1989	1991	1993	1995	1998	2001
Auto Occupancy 1	у	У	у	у	у	у	у	у	у	у
Auto 2	ý	ý	y	ý	ý	y	ý	y	y	ý
Auto 3	У	У	У	y	y	У	y	У	у	у
Auto 4	у	У	У	ý	у	у			Ť	
Auto 4+	<u> </u>						У	У	У	у
Auto 5	У	У	У	у	у	у			Ť	
Auto 6+	ý	ý	ý	ý	У	у				
Cab 1 (driver and no passengers)	<u> </u>						У	У	У	у
Cab 2 (1 passenger)							ý	v	y	y
Cab 3 (2 passengers)										ý
Cab 3+ (2 or more passengers)							у	У	у	,
Cab 4 (3 passengers)							,		,	у
Cab 4+ (3 or more passengers)										,
Cab 5 (4 passengers)										
Cab 6 (5 passengers)	<u> </u>									
Light Truck	у	У	У	У	У	У	γ	у	у	у
Light Truck with 1 Occupancy	,	,	,	,	y	,	,	, ,	у	,
Light Truck with 2 Occupancy										
Light Truck with 3+ Occupancy										
Medium Truck	у	у	у	у	\ \/	у	1/			У
Heavy Truck	У	У	γ	γ	У	y	У	У	y y	y
Truck with Trailer	y	У	У	У	у	У	У	У	У	у
Aggregate Truck										
School Bus) (),(У
School Bus Occupancy							У	У	У	y
Small School Bus	-						У	У	У	У
Small School Bus Occupancy										
Large School Bus										
Large School Bus Occupancy										
TTC Bus										
TTC Bus Occupancy										
TTC Streetcar										
										-
TTC Subvey										-
TTC Subway										-
TTC Subway Occupancy										
Municipal Bus	У	У	У	У	У	У	У	У	У	У
Municipal Bus Occupancy	У	У	У	У	У	У	У	У	У	У
Inter-regional Bus										
Inter-regional Bus Occupancy										
Intercity Bus										
Intercity Bus Occupancy										
Regional Bus									У	
Regional Bus Occupancy									У	
GO Bus	У	У	У	У	У	У	У	У		У
GO Bus Occupancy	У	У	У	У	У	У	У	У		У
GO Rail										
GO Rail Occupancy	У	У	У	У	у	У	У	У	У	У
Other Bus	У	У	У	У	у	У	у	У	У	У
Other Bus Occupancy	У	У	У	У	У	У	У	У	У	У
Motorcycle										
Bicycle										
Pedestrians										
Total Vehicles	include	all vehi	cles							
Total Persons	exclude	e taxi & t	ruck dri	vers						
Counting Period - Start	6:30				6:30	5:30	5:30	5:30	5:30	*5:30
Counting Period - Stop	23:30									
Note		stations								
	early	2.20011	g		ou			Fo	r all γea	rs. liaht
	1 -	cluded t	axi with	driver a	ınd no p	assenae	ers.	. •	,	,
	, , , , , , , , , , , , , , , , ,				Р					

							Farant						
	1975	1977	1979	1981	1983	1985	Toronto	1989	1991	1993	1995	1998	2001
Auto Occupancy 1	у	у	у	V	у	у	у	V	у	V	V	у	у у
Auto 2	y	y	У	У	У	У	У	У	У	У	У	У	У
Auto 3	y	У	У	У	У	У	y	У	y	У	У	У	У
Auto 4	У	V	V	V	V	V	V	V	y V	V	V	, y	V
Auto 4+	у	у	у	у	у	у	у	у	у	у	у	1/	l y
Auto 5	37	37	1/		1/	1/	1/	1/		17	1/	У	\vdash
Auto 6+	У	У	У	У	У	У	У	У	У	У	У	<u> </u>	\vdash
Cab 1 (driver and no passengers)	У	У	У	У	У	У	У	У	У	У	У	<u> </u>	
Cab 2 (1 passenger)	У	У	У	У	У	У	У	У	У	У	У	У	у
_ ,	У	У	У	у	У	У	У	У	У	У	У	У	У
Cab 3 (2 passengers)	У	У	У	У	У	У	У	У	У	У	У	У	У
Cab 3+ (2 or more passengers)													
Cab 4 (3 passengers)	У	У	У	У	У	У	У	У	У	У	У		
Cab 4+ (3 or more passengers)												У	У
Cab 5 (4 passengers)	У	У	У	У	У	У	У	У	У	У	У		
Cab 6 (5 passengers)	У	У	У	У	У	У	У	У	У	У	У		
Light Truck	У	У	У	У	У	У	У	У	У	У	У	У	У
Light Truck with 1 Occupancy													
Light Truck with 2 Occupancy													
Light Truck with 3+ Occupancy													
Medium Truck	У	У	У	У	У	У	У	У	У	У	У	У	У
Heavy Truck	У	У	У	У	У	У	У	У	У	У	У	У	У
Truck with Trailer													У
Aggregate Truck													
School Bus										У	У	У	У
School Bus Occupancy										V	ý	v	ý
Small School Bus												- 	
Small School Bus Occupancy													
Large School Bus													
Large School Bus Occupancy													
TTC Bus	у	у	у	У	у	у	у	у	У	У	У	У	У
TTC Bus Occupancy	У	У	У	У	У	У	У	У	У	У	У	У	У
TTC Streetcar	У	У	У	У	У	У	У	У	У	У	У	У	У
TTC Streetcar Occupancy	У	У	У	У	У	У	У	У	У	У	У	У	У
TTC Subway	У	У	У	У	У	У	У	У	У	У	У	У	У
TTC Subway Occupancy	У	V	V	V	V	V	V	V	٧	V	V	V	V
Municipal Bus	y	y	y	У	y	y	y	, y	У	y	y	y	y
Municipal Bus Occupancy	-											<u> </u>	
Inter-regional Bus	-											 	\vdash
Inter-regional Bus Occupancy												<u> </u>	
Inter-regional Bus Occupancy												 	
Intercity Bus Occupancy													
Regional Bus	-						1,	,,	1,	.,	L .	L .	L
Regional Bus Occupancy	-		—		У	У	У	У	У	У	У	У	У
	-				У	У	У	У	У	У	У	У	У
GO Bus												У	У
GO Bus Occupancy											L	У	У
GO Rail	У	У	У	У	У	У	У	У	У	У	У	У	у
GO Rail Occupancy	У	У	У	У	У	У	У	У	У	У	У	У	У
Other Bus	У	У	У	У	У	У	У	У	У	У	У	У	У
Other Bus Occupancy	у	У	У	У	У	У	У	У	У	У	У	У	У
Motorcycle													
Bicycle										У	У		У
Pedestrians													
Total Vehicles	in clude	all ver	nicles, e	xclude	bicycle	es							
Total Persons	ex clud	e taxi d	rivers, t	ruck dr	ivers &	cyclists	;						
Counting Period - Start	6:30							6:30	6:30	*5:45	*5:45	*6:00	*6:00
Counting Period - Stop		23:30				*23:30				*23:30			*20:00
Note			ns migh										
			O Trans					AM or P	M perio	od			
	•												

	York								
	1985	1987	1989	1991	1993	1995	1998	2001	
Auto Occupancy 1	у	у	У	у	у	у	У	у	
Auto 2	У	У	У	у	у	у	у	у	
Auto 3	У	У	У	У	у	У	У	у	
Auto 4	У	У	У	У	у	У	У	у	
Auto 4+									
Auto 5	У	У	У	У	У	У	У	У	
Auto 6+	У	У	У	У	У	У	У	У	
Cab 1 (driver and no passengers)		у	У	У	у	У	У	у	
Cab 2 (1 passenger) Cab 3 (2 passengers)	У	У	У	У	У	У	У	У	
Cab 3+ (2 or more passengers)	У	У	У	У	у	у	у	у	
Cab 4 (3 passengers)	у	у	У	у	y	у	у	У	
Cab 4+ (3 or more passengers)	,	,	,	,					
Cab 5 (4 passengers)	у	у	У	у					
Cab 6 (5 passengers)	у	у	У	у					
Light Truck	y	у	у	y					
Light Truck with 1 Occupancy					у	у	У	у	
Light Truck with 2 Occupancy					у	у	у у	у	
Light Truck with 3+ Occupancy					у	у	у	у	
Medium Truck	у	у	У	у	у	У	у	у	
Heavy Truck	У	у	у	У	у	у	у	у	
Truck with Trailer								у	
Aggregate Truck									
School Bus	У	У	У	У	У	У	У	У	
School Bus Occupancy	у	У	У	У	у	у	у	У	
Small School Bus									
Small School Bus Occupancy									
Large School Bus									
Large School Bus Occupancy									
TTC Bus									
TTC Bus Occupancy									
TTC Streetcar									
TTC Streetcar Occupancy									
TTC Subway									
TTC Subway Occupancy									
Municipal Bus						У	у	у	
Municipal Bus Occupancy Inter-regional Bus						У	У	У	
Inter-regional Bus Occupancy									
Inter-regional Bus Occupancy									
Intercity Bus Occupancy									
Regional Bus									
Regional Bus Occupancy									
GO Bus						у	у	у	
GO Bus Occupancy						у	у	у	
GO Rail						,	3	'	
GO Rail Occupancy					у	у	V*	у	
Other Bus	у	у	У	у	y	У	у	у	
Other Bus Occupancy	у	у	У	y	y	у	у у	y	
Motorcycle					, i				
Bicycle					у	у	у	у	
Pedestrians					y	y	у		
Total Vehicles	include all	vehicles**				-			
Total Persons	include tax	ri & truck d	rivers & cv	clist. exclu	de pedestri	ans***			
Counting Period - Start	6:30					6:00	6:00	*6:00	
Counting Period - Stop	19:15					19:00		*20:00	
Note				and end ea				*	
	Prior to 20 2001 cyclis included	01 bicycles			-		**	* Prior to	
	I				TTC bus, m n GO transi		s, charter	bus, etc.	