MetroCount® traffic data specialists

MetroCount Support for RAMM Traffic Count Estimation

The MetroCount 5600 Vehicle Classifier System (MC5600) is used throughout New Zealand for short term traffic surveys. After gathering traffic data, MC5600 datasets are processed with MetroCount Traffic Executive (MTE) software to produce a variety of traffic reports.

MetroCount have developed a Custom List template for use with MTE version 3.21 that is compatible with RAMM Traffic Count Estimation, supporting automatic traffic data upload to RAMM.



Note: Detailed instructions for operating the MC5600 system and its associated software are not provided in this document. For further information on the MC5600 system and the MTE software, please contact MetroCount directly on +61 8 9430 6164, or visit the company's website at: www.metrocount.com.

MetroCount provide the latest MTE software version upon request. To check whether you have the latest software, or to request a copy, contact MetroCount directly on +61 8 9430 6164, or visit the company's website at: <u>www.metrocount.com</u>.

Process Summary

The following diagram provides an overview of data gathering with the MC5600 and processing with MTE to generate and upload traffic data compatible with RAMM.



- 1. Allocate MetroCount Site IDs compatible with RAMM Traffic Count Estimation. To be used when setting up MC5600 units.
- 2. Install MC5600 and other site equipment.
- 3. Setup MC5600 units using correct Site IDs. Use unique Lane numbers for multiple loggers used at multi-lane sites.
- 4. Unload MC5600 data at end of survey.
- 5. Remove MC5600 units and other site equipment. If survey program continues at other sites, relocate MC5600 units.
- 6. Process data with MTE's "MCReport" module, using RAMM Traffic Count Estimation Custom List templates (Custom List favourite).
- 7. Save and upload RAMM Traffic Count Estimation-compatible traffic data files.

MetroCount Site ID's For RAMM Traffic Count Estimation

The MetroCount Site ID field is used by RAMM to identify and upload traffic survey results. The format is strictly as follows:

nnn_xxxxxx_yyyyy

Where:

- **nnn** is the three digit LA number.
- **XXXXXX** is the six digit road number, and
- yyyyyy is the six digit displacement for the survey location.

Note: 1. The underscore character "_" separates the above fields is required.

2. All fields must be zero filled if less than six digits (eg 00123).

The Site ID is entered into MC5600 vehicle classifiers during setup of the roadside unit.

Edit site list ite Roadside Set site informat	m Unit Setup on here			Halita	In this e	xample
Site	Attribute		Operator		001	LA number (3 digits)
Somewhere Start time			ABC	Location	001234	Road number (6 digits)
Immediately Site description				Start time	005432	Displacement (6 digits)
John St south of Sensor layout	Smith St		Lockout (ms]		
Axle sensors - Paired (Class/Speed/Count) 30 Set Lockout						
A->B 7 - North bound A>B, South bound E 0 0 - Unused or unknown.				Note: Use a unique lane number for multi-lane sites.		
0 - Unuse 0 - Unuse	d or unknown. d or unknown.	✓ 0✓ 0				
5pacing 1000 mm - 3 ft 3.	4 in Set Spac	ing	Cancel	ОК		

MetroCount 5600 roadside unit setup screen

Note: At survey sites with multiple lanes, setup <u>ALL</u> MetroCount roadside units with the same Site ID but with a unique Lane number for each unit. This is to ensure a unique file name for all input files (see MetroCount documentation for further details).

Data Processing Using the MetroCount "RAMM Traffic Count Estimation" Custom List

The RAMM Traffic Count Estimation uses MCReport's Custom List feature. MetroCount's Custom List feature comprises two pairs of files:

- The **.xpt** template file, and
- The associated **.ini** report settings file.

As there are three vehicle classification schemes used in New Zealand, three Custom List templates are provided.

>> For ARX (modified Austroads 94) Class Scheme Users

- RAMM_ARX_Mar12.xpt The MTE template definition file, and
- RAMM_ARX_Mar12.ini The MTE report profile file containing traffic filter and other report settings.

>> For NZTA2011 Class Scheme Users

- RAMM_NZTA2011_Mar12.xpt The MTE template definition file, and
- RAMM_NZTA2011_Mar12.ini The MTE report profile file containing traffic filter and other report settings.
- NZTA2011.sch The NZTA 2011 class scheme definition file

Note: This class scheme was not available with the original release of MTE version 3.21)

>> For TNZ99 Class Scheme Users

- RAMM_TNZ99_Mar12.xpt The MTE template definition file, and
- RAMM_TNZ99_Mar12.ini The MTE report profile file containing traffic filter and other report settings.

These files are available from: <u>www.metrocount.com/downloads/ramm_nz</u>

Template Installation

During the installation of MTE, a folder, MetroCount/MTE 3.21/Profiles, is created as a subfolder of the current user's Windows document folder. The RAMM Traffic Count Estimation Custom List files must be copied to the folder, eg:

C:\UserName\My Documents\MetroCount\MTE 3.21\Profiles

Data Processing

After copying these files, restart MTE's MCReport module. If correctly copied and installed, the RAMM Traffic Count Estimation template will appear as a MetroCount Custom List favourite:

Custom lists	
Custom List reports	المحضأ جالك
Lifeate custom reports here	
RAMM_ARX_Mar12	Modify
Custom List favorites	▲
🎭 Class Bins Virtual Day and Week	
💐 Class Bins with 15-min drops	
💐 Comma Separated Speed Bins	
💐 Database example	
🔍 Individual	
BAMM_ARX_Mar12	
RAMM_NZTA2011_Mar12	
RAMM_TNZ99_Mar12	
BOMAN_II_March2011	
🗣 Safety Camera Example (30-40)	
🗣 Safety Camera Example (50-60-70)	
🗣 Speed Bins with Grand Total	~
Load Save As Delete	OK Cancel

RAMM TRAFFIC COUNT ESTIMATION report appearing as MetroCount Custom List template

MetroCount files are processed using the RAMM Traffic Count Estimation Custom List favourite, which will load the appropriate filter settings:

- Complete days starting and ending at midnight.
- The ARX, TNZ 1999 or NZTA 2011 Vehicle Classification Scheme

Note: Any scheme can be used as required, by selecting the appropriate Custom List template.

- Vehicle classes 1 to 12, 13, 14 depending on the above.
- Speed range 5 160 km/h.
- All available traffic flow directions.
- All separations (i.e. no headway filtering.)
- Metric units.

The RAMM Traffic Count Estimation Custom List will generate a traffic survey summary. To save the report in MCReport, choose "**File** > **Save report as...**" This summary must be saved in "**Plain text format ANSI (*.txt)**" format.

The RAMM Traffic Count Estimation traffic survey summary reports will be saved in the MetroCount\MTE 3.21\Output folder.

WARNING: Do not change the default output file name.

Further notes on data processing:

- All files from multiple lane surveys may be processed as a group. Load and tag multiple metrocount datasets as required. The result will be one output file with all data combined across multiple lanes.
- Apart from checking for valid file format, the RAMM upload module performs no data quality checks. Therefore, it is imperative that only acceptable and complete data is uploaded, following the validation procedures as recommended by MetroCount.

RAMM Traffic Count Estimation Vehicle Classifications

There are three vehicle classification schemes compatible with RAMM Traffic Count Estimation. The listing below shows how the 13 or 14 vehicle classes contribute to the five PEM Classes.

Users may choose any scheme, by selecting the appropriate Custom List template.

ARX Vehicle Classifications (RAMM_ARX_Mar12)

In the "ARX" vehicle classification scheme there are 12 classifications reported. They contribute to the five PEM Classes as follows:

- Class 1 \rightarrow Car (100%)
- Class $2 \rightarrow Car (80\%), LCV (20\%)$
- Class $3 \rightarrow Car (20\%), LCV (80\%)$
- Class $4 \rightarrow MCV$
- Class $5 \rightarrow$ HCV 1
- Class $6 \rightarrow$ HCV 1
- Class 7 \rightarrow HCV 1
- Class $8 \rightarrow$ HCV 1
- Class $9 \rightarrow$ HCV 2
- Class $10 \rightarrow \text{HCV } 2$
- Class $11 \rightarrow$ HCV 2
- Class $12 \rightarrow$ HCV 2

NZTA 2011 Vehicle Classifications (RAMM_NZTA2011_Mar12)

In the NZTA 2011 Vehicle Classification scheme there are 14 classifications reported. They contribute to the five PEM Classes as follows:

- Class $1 \rightarrow Car$
- Class $2 \rightarrow Car (50\%), LCV (50\%)$
- Class $3 \rightarrow MCV$
- Class $4 \rightarrow$ HCV 1
- Class $5 \rightarrow$ HCV 1
- Class $6 \rightarrow$ HCV 1
- Class 7 \rightarrow HCV 1
- Class $8 \rightarrow$ HCV 2
- Class $9 \rightarrow$ HCV 2
- Class $10 \rightarrow \text{HCV } 2$
- Class $11 \rightarrow$ HCV 2
- Class $12 \rightarrow \text{HCV } 2$
- Class $13 \rightarrow$ HCV 2
- Class $14 \rightarrow \text{HCV } 2$

TNZ 1999 Vehicle Classifications (RAMM_TNZ99_Mar12.xpt)

In the TNZ 1999 Vehicle Classification scheme there are 13 classifications reported. They contribute to the five PEM Classes as follows:

- Class $1 \rightarrow Car$
- Class 2 \rightarrow Car (50%), LCV (50%)
- Class $3 \rightarrow MCV$
- Class $4 \rightarrow$ HCV 1
- Class $5 \rightarrow$ HCV 1
- Class $6 \rightarrow$ HCV 1
- Class 7 \rightarrow HCV 1
- Class $8 \rightarrow$ HCV 2
- Class $9 \rightarrow$ HCV 2
- Class $10 \rightarrow \text{HCV } 2$
- Class $11 \rightarrow$ HCV 2
- Class $12 \rightarrow \text{HCV } 2$
- Class 13 \rightarrow HCV 2