MetroCount®
Traffic Data Specialists

Classification Reports

MTE User Manual

3.21
June 2009

©MetroCount®

Weekly Vehicle Counts

Continuous

The Weekly Vehicle Counts report lists traffic volumes by hour in a weekly format, with one week per page. Each row represents a single hour time step, and the columns represent days of the week, with the actual dates shown.

```
                   Mon      Tue      Wed      Thu      Fri      Sat      Sun    Averages
                 16 Jul   17 Jul   18 Jul   19 Jul   20 Jul   21 Jul   22 Jul   1 - 5    1 - 7
     Hour                                                                    |
     0000-0100     172      141      193      226      218      413      522 |  190.0    269.3
     0100-0200     106       89      114      130      113      252      282 |  110.4    155.1
     0200-0300      80       73       81       91      119      177      216 |   88.8    119.6
     0300-0400     125      121      126      130      139      148      190 |  128.2    139.9
     0400-0500     318      351      310      333      264      215      178 |  315.2    281.3
     0500-0600     728      705      700      696      632      396      276 |  692.2    590.4
     0600-0700    1562     1491     1486     1519     1483      574      345 | 1508.2   1208.6
     0700-0800    1915<    1963<    1981<    1863<    1836      785      591 | 1911.6<  1562.0
     0800-0900    1877     1827     1841     1762     1844<    1039      851 | 1830.2   1577.3<
     0900-1000    1483     1554     1549     1583     1578     1152      911 | 1549.4   1401.4
     1000-1100    1461     1467     1478     1505     1521     1099     1099 | 1486.4   1402.9
     1100-1200    1560     1579     1622     1532     1602     1466<    1287<| 1579.0   1521.1
     1200-1300    1555     1611     1568     1571     1641     1362     1369<| 1589.2   1525.3
     1300-1400    1518     1599     1530     1593     1563     1350     1280 | 1560.6   1490.4
     1400-1500    1601     1614     1581     1625     1657     1343     1288 | 1615.6   1529.9
     1500-1600    1761     1888     1843     1773     1658     1286     1281 | 1784.6   1641.4
     1600-1700    1955     2052<    2008<    1923<    1999     1252     1256 | 1987.4   1777.9
     1700-1800    1989<    2044     1999     1912     2001<    1422<    1273 | 1989.0<  1805.7<
     1800-1900    1316     1426     1515     1473     1552     1198      924 | 1456.4   1343.4
     1900-2000     840      926     1049      910     1063     1014      735 |  957.6    933.9
     2000-2100     716      798      847      815      814     1036      660 |  798.0    812.3
     2100-2200     711      773      920      851      806     1099      613 |  812.2    824.7
     2200-2300     515      656      703      654      762      794      519 |  658.0    657.6
     2300-2400     281      359      401      366      611      677      303 |  403.6    428.3
                                                                            |
     Totals       _____    |_____
                                                                            |
     0700-1900   19991    20624    20515    20115    20452    14944    13410 |20339.4  18578.7
     0600-2200   23820    24612    24817    24210    24618    18667    15763 |24415.4  22358.1
     0600-0000   24616    25627    25921    25230    25991    20138    16585 |25477.0  23444.0
     0000-0000   26145    27107    27445    26836    27476    21739    18249 |27001.8  24999.6
                                                                            |
     AM Peak      0700     0700     0700     0700     0800     1100     1100 |
                  1915     1963     1981     1863     1844     1466     1287 |
                                                                            |
     PM Peak      1700     1600     1600     1600     1700     1700     1200 |
                  1989     2052     2008     1923     2001     1422     1369 |
```

Weekly Vehicle Counts report

Five-day and seven-day averages are provided on the right side of the report. The five-day average is the average vehicle flow across week-days. The seven-day average is the average vehicle flow across the entire week. Note that weekends are underlined.

12 hour (0700-1900), 16 hour (0600-2200), 18 hour (0600-0000) and 24 hour (0000-0000) totals are included at the bottom of the Weekly Vehicle Counts report. Also included are the AM and PM peak hours for each day, and their respective hourly totals. Note that the AM and PM peaks are also indicated in the hourly totals by a bold typeface and a **<** character.

An asterisk ***** in the report matrix represents an hour where data is not available for the entire hour, or has been excluded in the report Profile. Note that this is different to a zero vehicle count for an hourly period, which will be correctly displayed with a 0.

The Weekly Vehicle Counts report does not include totals where there is missing data for any period covered by that total. This prevents results from being displayed that are misleading due to missing

data. If totals for partial days of data are required, consider using another report, such as the Vehicle Counts report.
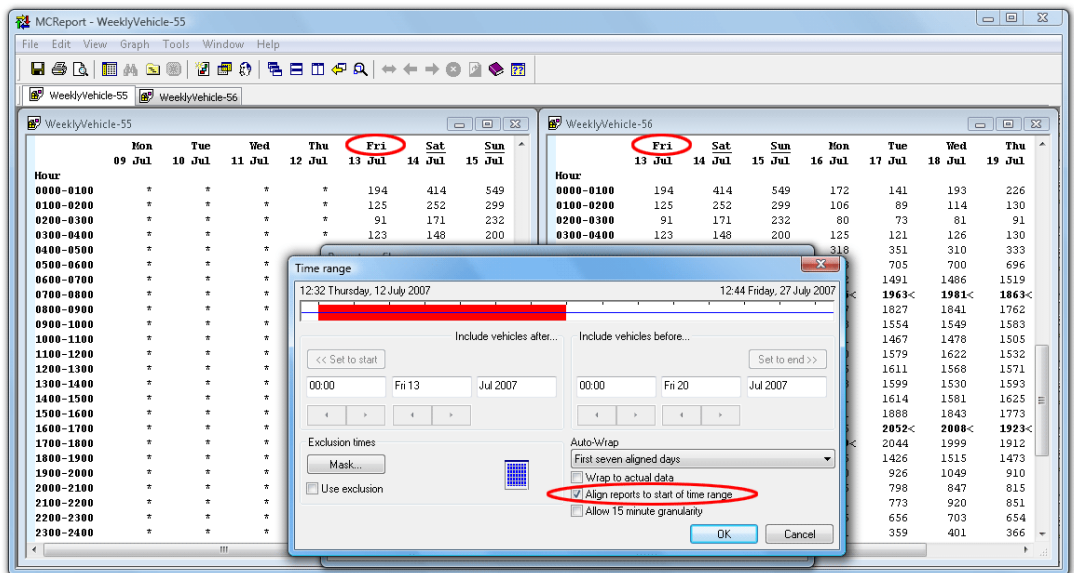
All averages in the Weekly Vehicle Counts report are correctly calculated when there is missing data. For example, a five-day average where two of the days contain no data (asterisks) will be correctly averaged over the three days of actual data.

Note also that the five-day and seven-day averages next to the totals at the bottom of the report are calculated from the all available data. This may not be the average of the daily totals if partial days are included.

Time Filtering

The default behaviour of the Weekly Vehicle Counts report is to align to the first weekday. For a dataset that starts mid-week, a single week of data will span two pages.

To align the report to the start of the dataset, select the **Align reports to start of time range** option in the report's Profile. To restrict the report to a single week, consider using the **First seven aligned days** Auto-Wrap option.

A Weekly Vehicle Report, aligned to the first day (weekends underlined)

Virtual Week

The Virtual Week version of the Weekly Vehicle Counts report merges multiple weeks of data into a single, averaged week.

Each hourly total in this report is the sum of the same hour from each week, divided by the number of weeks that data is available for that period. As this report is a mathematical representation of average vehicle flow, totals are displayed as floating point numbers.

The layout of the Virtual Week version is identical to the continuous Weekly Vehicle Counts report, with the exception that dates are not included at the top of each day column.

Vehicle Counts

Continuous

The Vehicle Counts report is based on a 24-hour format. Each day of data is represented by 24 hourly totals, with a user defined hourly breakdown, called time drops. For example, a time drop of 15 minutes will produce an additional four totals below the hourly totals, for each 15 minute period.

Time drops that do not contain complete data are represented by a hyphen (-). These include time drops excluded by the time filter, and partial drops where the dataset starts or ends mid-drop. Hourly totals will not be displayed if there are any missing drops.

Each day in the report includes a day heading, with the date and the total vehicles in the report Profile for that day. Days containing complete data also include a day summary, with the AM and PM peak hours to the resolution of the time drop, and the total vehicles in that hour.

The AM and PM Peak Hour Factor is a measure of flow variation within the peak hour. It is calculated as the total of the peak hour, divided by the peak bin total multiplied by the drops per hour. Therefore, if the peak hour total is spread equally across the time drops for that hour, the Peak Hour Factor will be equal to 1. The Peak Hour Factor normally ranges between 0.7 and 1.0.

The last column on a Vehicle Counts report is simply the first column from the next day. This is for highlighting a peak hour that spans across a day boundary. Note that these figures are not included in the daily total.

The Vehicle Counts report has a number of formatting options, including the size of the time drops. These are accessed via **Properties** in the report's right-click menu.

Vehicle Counts report, with format options

Option	Description
Time drops	Specifies the interval for each time drop.
Include peak line	Includes the day summary row with AM and PM peaks. This line will not appear if a day does not contain complete data.
Show peak hour in	Drop totals that are part of the AM and PM peak hours will be displayed in

Option	Description
colour	red. Note that the peak hour is calculated to the resolution of the time drop, and may span two columns.

Virtual Day

The Virtual Day version of the Vehicle Counts report merges multiple days of data into a single, averaged day.

Each drop total in this report is the sum of the same time drop from each day, divided by the number of days that data is available for that period. Note that all totals are rounded to the nearest integer.

Daily Classes

Standard

The Daily Classes report provides a class breakdown of daily traffic volume, with one week per page.

Each day is displayed with the total daily volume, and the volume and percentage for each vehicle class included in the report Profile.

The end of each page includes the five-day and seven-day averages. Note that days with incomplete data are not included in the average calculations.

```
Sunday, 28 April 2002
             1      2      3      4      5      6      7      8      9     10     11     12     13    Total
Sun         62  15628    224    144     30      2     11      5      3      9      1      1      0    16120
(%)        0.4   96.9    1.4    0.9    0.2    0.0    0.1    0.0    0.0    0.1    0.0    0.0    0.0

Mon         80  22442    282    812    138     27     50     36     37    107      7      0      6    24024
(%)        0.3   93.4    1.2    3.4    0.6    0.1    0.2    0.1    0.2    0.4    0.0    0.0    0.0

Tue         78  22826    258    800    144     40     52     41     47     99      6      0      4    24395
(%)        0.3   93.6    1.1    3.3    0.6    0.2    0.2    0.2    0.2    0.4    0.0    0.0    0.0

Wed         71  23340    243    785    140     26     32     49     52     96      9      2      3    24848
(%)        0.3   93.9    1.0    3.2    0.6    0.1    0.1    0.2    0.2    0.4    0.0    0.0    0.0

Thu         61  23225    243    801    141     31     37     53     49     98     10      0      3    24752
(%)        0.2   93.8    1.0    3.2    0.6    0.1    0.1    0.2    0.2    0.4    0.0    0.0    0.0

Fri         50  23474    270    807    147     34     44     47     31    107      6      0      7    25024
(%)        0.2   93.8    1.1    3.2    0.6    0.1    0.2    0.2    0.1    0.4    0.0    0.0    0.0

Sat         70  18496    279    302     92     20     13     17     26     38      4      0      1    19358
(%)        0.4   95.5    1.4    1.6    0.5    0.1    0.1    0.1    0.1    0.2    0.0    0.0    0.0


Average daily volume

Entire week
            67  21346    257    635    118     25     34     35     35     79      6      0      3    22645
(%)        0.3   94.3    1.1    2.8    0.5    0.1    0.2    0.2    0.2    0.3    0.0    0.0    0.0

Weekdays
            68  23061    259    801    142     31     43     45     43    101      7      0      4    24608
(%)        0.3   93.7    1.1    3.3    0.6    0.1    0.2    0.2    0.2    0.4    0.0    0.0    0.0

Weekend
            66  17061    251    223     61     11     12     11     14     23      2      0      0    17738
(%)        0.4   96.2    1.4    1.3    0.3    0.1    0.1    0.1    0.1    0.1    0.0    0.0    0.0
```

Daily Classes example

Split Direction

The Daily Classes by Direction report includes additional rows where the daily class totals are split into vehicles travelling in the **A>B** and **B>A** directions. The **AB%** and **BA%** rows are the directional split percentages, not percentage of total.

```
Monday, 29 April 2002
             1      2      3      4      5      6      7      8      9     10     11     12     13    Total
Mon        143  43648    544   1654    304     48     99     94     73    210     12      1      8    46838
(%)        0.3   93.2    1.2    3.5    0.6    0.1    0.2    0.2    0.2    0.4    0.0    0.0    0.0
AB          80  22433    282    812    138     27     50     36     37    107      7      0      6    24015
AB%       55.9   51.4   51.8   49.1   45.4   56.3   50.5   38.3   50.7   51.0   58.3    0.0   75.0    51.3
BA          63  21215    262    842    166     21     49     58     36    103      5      1      2    22823
BA%       44.1   48.6   48.2   50.9   54.6   43.8   49.5   61.7   49.3   49.0   41.7  100.0   25.0    48.7
```

Daily Classes by Direction sample

Estimated Mass

The Estimated Mass version of the Daily classes report includes an additional line for each day that lists estimated standard axles, freight mass and gross mass totals. These values are calculated from the mass table defined in the report Profile.

```
Monday, 29 April 2002
          1     2     3     4     5     6     7     8     9    10    11    12   Total
Mon      80 22433   282   812   138    27    50    36    37   107     7     0   24009
(%)     0.3  93.4   1.2   3.4   0.6   0.1   0.2   0.1   0.2   0.4   0.0   0.0
ESA=1382.6, Freight=5210000.0, Gross mass=14754800.0kg
```

Daily Classes (Estimated Mass) sample

Time Filtering

The default behaviour of the Daily Classes report is to align to the first weekday. For a dataset that starts mid-week, a single week of data will span two pages.

To align the report to the start of the dataset, select the **Align reports to start of time range** option in the report's Profile. To restrict the report to a single week, consider using the **First seven aligned days** Auto-Wrap option.
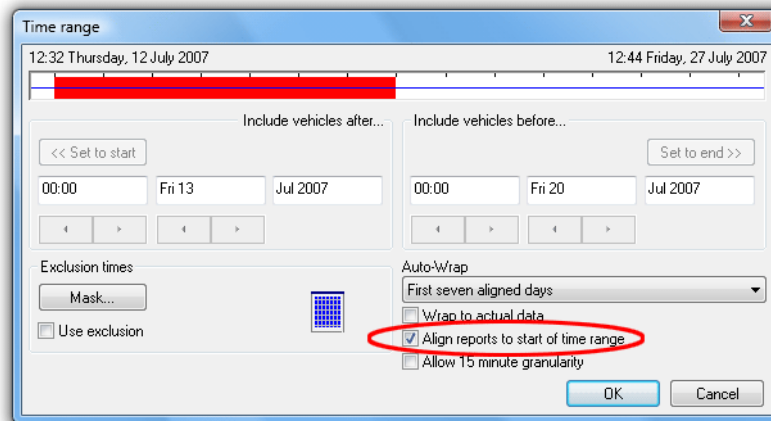
Aligning the start of reports

Class Speed Matrix

The Class Speed Matrix report provides a speed-by-class matrix of traffic data over the entire period of data, in a one page format. This report provides an excellent summary of traffic behaviour.

Vehicles are grouped by class, and by speed as defined in the speed bins in the report Profile. Speed bin totals and percentages are given down the right of the report. Class totals and percentages are given along the bottom of the report.

```
Speed (km/h)                                                                          Speed Totals
    |                                                                                        |
    |                                        Class                                           |
    |        1       2       3       4       5       6       7       8       9      10      11      12      13       |
  10 -  20 |    .      70       .       .       2       .       .       .       .       .       1       .      1|      74    0.0%
  20 -  30 |    1     836       5      14       1       .       .       1       .       .       .       .      .|     858    0.1%
  30 -  40 |    2    1657      20      39       4       1       1       1       1       1       .       .      2|    1729    0.2%
  40 -  50 |    5    7243      81     233      34       8       7      18      20      32       4       3      2|    7690    0.7%
  50 -  60 |   46   34740     457    1156     182      47      30      67      45     127      10       5     17|   36929    3.3%
  60 -  70 |  274  150091    1976    5080     842     157     240     300     246     555      34       6     50|  159851   14.2%
  70 -  80 | 1207  455374    5260   13479    2469     538     664     844     612    1567     126      27     82|  482249   42.7%
  80 -  90 | 1903  349450    3027    7217    1346     283     363     419     430     887      66      13     37|  365441   32.4%
  90 - 100 |  984   59081     411     669      84      35      31      27      33      60       3       1      3|   61422    5.4%
 100 - 110 |  383    8337      31      62       6       3       .       1       1       6       2       .      .|    8832    0.8%
 110 - 120 |  150    1568       2      21       .       1       .       .       .       .       .       .      .|    1742    0.2%
 120 - 130 |   76     429       .       4       .       .       .       .       .       .       .       .      .|     509    0.0%
 130 - 140 |   32     152       .       1       .       1       .       .       .       .       .       .      .|     186    0.0%
 140 - 150 |   16      58       .       .       .       .       .       .       .       .       .       .      .|      74    0.0%
 150 - 160 |    4      21       .       .       .       .       .       .       .       .       .       .      .|      25    0.0%
    |                                                                                        |
    | 5083 1069107   11270   27975    4970    1074    1336    1678    1388    3235     246      55    194|1127611
    | 0.5%   94.8%    1.0%    2.5%    0.4%    0.1%    0.1%    0.1%    0.1%    0.3%    0.0%    0.0%   0.0%|
                                        Class Totals

The Profile is wider than the displayed bins. 516 vehicles are hidden.
```

Class Speed Matrix sample

Note that some vehicles may be in speed bins that are disabled in the report Profile. If this is the case, a message will be displayed at the bottom of the report, indicating the number of vehicles that are hidden. To view these vehicles, enable all speed bins.

Speed Separation Matrix

The Speed Separation Matrix report provides a speed-by-separation matrix of traffic data over the entire period of data, in a one page format.

Vehicles are grouped per the speed bins and separation bins defined in the report's Advanced Profile options. Speed bin totals and percentages are summarised down the right of the report, and separation bin totals and percentages along the bottom.

```
Speed (km/h)                                                                                      Speed Totals
 |
 |          _____           |
 |                                    Headway (Second)                                             |
 |          0.0    0.5    1.0    2.0    4.0    8.0    16.0   32.0   64.0  128.0      |
 |          0.5    1.0    2.0    4.0    8.0    16.0   32.0   64.0  128.0 1000.0|
 10 -  20 |    1      1     12     34      9      8      4      .      .      2|        71   0.0%
 20 -  30 |    3      2    255    485     70     16     18      8      .      .|       857   0.1%
 30 -  40 |    1     36    853    652    100     55     23      6      3      .|      1729   0.2%
 40 -  50 |    1    622   4866   1851    227     75     31     10      4      3|      7690   0.7%
 50 -  60 |   12   5576  23518   6638    819    239     77     29     14      1|     36923   3.3%
 60 -  70 |  185  27524  87750  31332   8791   3027    856    273     77     35|    159850  14.2%
 70 -  80 |  658  63558 190791 120782  62832  28748  10314   3270    934    360|    482247  42.7%
 80 -  90 |  523  33280  96781  92809  71303  41894  18909   6962   2094    879|    365434  32.4%
 90 - 100 |   69   2854   9443  13763  14349  10845   6024   2657    949    461|     61414   5.4%
100 - 110 |    9    194    621   1477   2119   1967   1342    666    253    182|      8830   0.8%
110 - 120 |    2     23     62    224    365    450    297    182     79     57|      1741   0.2%
120 - 130 |    .      7     15     59    104    133     96     56     26     13|       509   0.0%
130 - 140 |    2      5      6      6     38     38     47     25      9     10|       186   0.0%
140 - 150 |    .      3      4      6     11     15     23      4      5      3|        74   0.0%
150 - 160 |    .      2      3      2      3      6      5      3      1      .|        25   0.0%
          |_____
          | 1466 133687 414980 270120 161140  87516  38066  14151   4448   2006|   1127580
          | 0.1%  11.9%  36.8%  23.9%  14.3%   7.8%   3.4%   1.3%   0.4%   0.2%|
                                    Separation Totals
The Profile is wider than the displayed bins   547 vehicles are hidden.
```

Speed Separation Matrix sample

Note that some vehicles may be hidden by speed bins that are disabled in the report Profile, or by separation that is beyond the last defined separation bin. If this is the case, a message will be displayed at the bottom of the report, indicating the number of vehicles that are hidden. To view these vehicles, enable all speed bins, or expand the last separation bin.

Remember that the definition of separation, as either headway or gap, can be modified in the report's Advanced Profile options.

Rolling Day Totals

The Rolling Day Totals report provides hourly vehicle volume and speed statistics, with 15-minute totals.

This report uses a unique, 24-hour rolling format. Each 24-hour group aligns to the start of the time filter in the report Profile, not necessarily the start of a day.

The last four rows in each group are 12 (0700-1900), 16 (0600-2200), 18 (0600-0000) and 24-hour totals for the preceding 24 hourly steps.

```
* Saturday, 27 April 2002 - Sunday, 28 April 2002
    Time  Drop  Drop  Drop  Drop  Total |  Mean   Vpp
          --00  --15  --30  --45             85
  5:00 AM   46    58   104    77    285 |  85.0  90.7
  6:00 AM   76   115   152   153    496 |  83.2  88.9
  7:00 AM  119   168   162   196    645 |  83.2  88.9
  8:00 AM  176   171   219   229    795 |  80.4  86.0
  9:00 AM  209   240   258   266    973 |  79.6  85.3
 10:00 AM  260   266   284   297   1107 |  78.4  84.2
 11:00 AM  309   299   309   312   1229 |  76.6  83.2
 12:00 PM  317   324   341   315   1297 |  76.7  83.2
  1:00 PM  306   316   324   315   1261 |  76.9  83.5
  2:00 PM  285   287   303   303   1178 |  77.8  83.9
  3:00 PM  275   284   272   303   1134 |  78.4  85.0
  4:00 PM  297   293   371   398   1359 |  77.1  83.5
  5:00 PM  427   357   332   299   1415 |  78.0  84.2
  6:00 PM  276   266   270   251   1063 |  80.1  86.0
  7:00 PM  244   223   216   182    865 |  80.8  86.8
  8:00 PM  178   170   150   151    649 |  81.7  87.5
  9:00 PM  134   136   171   139    580 |  82.1  87.5
 10:00 PM  157   168   160   166    651 |  81.3  86.4
 11:00 PM  164   160   127   114    565 |  82.2  88.2
 12:00 AM  142   115   110    88    455 |  82.0  87.1
  1:00 AM   75    69    58    51    253 |  85.3  92.5
  2:00 AM   37    42    29    34    142 |  86.0  94.7
  3:00 AM   33    27    33    33    126 |  87.4  95.8
  4:00 AM   23    31    37    34    125 |  86.1  94.3
    07-19 3256  3271  3445  3484  13456 |  78.3  84.6
    06-22 3888  3915  4134  4109  16046 |  78.8  85.3
    06-00 4209  4243  4421  4389  17262 |  79.0  85.3
    00-00 4565  4585  4792  4706  18648 |  79.4  86.0
```

Rolling Day Totals sample

The Rolling Day Totals report is actually a shortcut to a Custom List Report. Selecting the Properties of this report will display the standard Custom List options.

Individual Vehicles

The Individual Vehicles report displays speed, wheelbase, headway, class and a scaled wheel picture for every vehicle. Each line of the report represents a single vehicle, with the time and date the vehicle was logged by the Roadside Unit.

```
DS Axle Num Ht YYYY-MM-DD hh:mm:ss Dr Speed     Wb    Hdwy    Gap Ax Gp  Rho Cl Nm          Vehicle
01 00002b45 04 2002-04-27 07:07:17 AB  75.8     2.8    1.0    0.9  2  2 1.00  2 00000020       SV o o
01 00002b49 04 2002-04-27 07:07:18 AB  76.8     3.0    1.3    1.1  2  2 1.00  2 00000020       SV o o
01 00002b4d 10 2002-04-27 07:07:19 AB  73.4     9.3    1.3    1.2  5  3 1.00  9 00000010     ART5 o  oo     oo
01 00002b57 12 2002-04-27 07:07:35 AB  79.6    14.1   15.3   14.9  6  3 1.00 10 00000010     ART6 o  oo       ooo
01 00002b63 04 2002-04-27 07:08:05 AB  92.5     2.8   29.9   29.3  2  2 1.00  2 00000010       SV o o
01 00002b67 04 2002-04-27 07:08:10 AB  75.7     4.9    5.2    5.1  2  2 1.00  4 00000020      TB2 o   o
01 00002b6b 04 2002-04-27 07:08:13 AB  79.7     2.4    3.4    3.2  2  2 1.00  2 00000020       SV o o
01 00002b6f 04 2002-04-27 07:08:17 AB  78.8     2.2    3.7    3.6  2  2 1.00  2 00000010       SV o o
01 00002b73 06 2002-04-27 07:08:27 AB  72.2     6.5   10.2   10.1  3  3 1.00  3 00000020      SVT o o     o
   ...           ...      ...      ...     ...    ...   ...        ...      ...       ...
```

Individual Vehicle report sample

Column	Description
DS	Tagged dataset index.
Axle Num	Dataset axle index.
Ht	Number of axle hits in the vehicle.
Date and Time	Date and time of the first axle in the vehicle.
Dr	Direction of travel of the vehicle.
Speed	Speed of the vehicle. Units of measurement are determined by the report Profile.
Wb	Wheelbase of the vehicle. Units of measurement are determined by the report Profile.
Hdwy	Headway - time since the *first* axle of the last vehicle travelling in the same direction.
Gap	Gap - time since the *last* axle of the last vehicle travelling in the same direction.
Ax	Number of axles in the vehicle.
Gp	Number of axle groups in the vehicle.
Rho	Sensor correlation factor.
Cl	Class of the vehicle.
Nm	Not defined - technical purposes only.
Vehicle	Class name and scaled wheel picture of the vehicle.

A graphical representation of the axle events for each individual vehicle may be obtained using the Axle Inspector. This is a timeline of sensor hits that MCReport has partitioned into a vehicle, based on the selected classification scheme. To display, simply double-click any row in the report.

DS Axle Num Ht YYYY-MM-DD hh:mm:ss Dr Speed   Wb   Hdwy   Gap Ax Gp Rho Cl N
00 000002ec 12 1993-09-20 13:16:01 AB 84.4 13.9   28.6   28.5 6 3 1.00 10 0

Anchor   Delta   Offset
483ms, 11.33 meter   55ms, 1.30 meter   538ms, 12.63 meter   [Display]

n	Offset	Delta	Time
B [000002E7] -5	3403.483	-30.342	1993-09-20 13:15:31
A [000002E8] -4	3405.193	-28.632	1993-09-20 13:15:33
B [000002E9] -3	3405.240	-28.585	1993-09-20 13:15:33
A [000002EA] -2	3405.295	-28.530	1993-09-20 13:15:33
B [000002EB] -1	3405.342	-28.483	1993-09-20 13:15:33
A [000002EC] 0	3433.825	0.000	1993-09-20 13:16:01
B [000002ED] 1	3433.868	0.043	1993-09-20 13:16:01
A [000002EE] 2	3433.965	0.140	1993-09-20 13:16:01
B [000002EF] 3	3434.008	0.183	1993-09-20 13:16:02
A [000002F0] 4	3434.026	0.200	1993-09-20 13:16:02
B [000002F1] 5	3434.068	0.243	1993-09-20 13:16:02
A [000002F2] 6	3434.309	0.483	1993-09-20 13:16:02
B [000002F3] 7	3434.351	0.526	1993-09-20 13:16:02
A [000002F4] 8	3434.364	0.539	1993-09-20 13:16:02
B [000002F5] 9	3434.407	0.581	1993-09-20 13:16:02
A [000002F6] 10	3434.417	0.592	1993-09-20 13:16:02
B [000002F7] 11	3434.461	0.636	1993-09-20 13:16:02
A [000002F8] 12	3435.760	1.935	1993-09-20 13:16:03
B [000002F9] 13	3435.805	1.980	1993-09-20 13:16:03
A [000002FA] 14	3435.882	2.056	1993-09-20 13:16:03
B [000002FB] 15	3435.927	2.102	1993-09-20 13:16:03

Examining individual vehicles using the Axle Inspector

The two sensor hit streams in a dataset are represented by the black lines, marked A and B. A circle indicates axle hits on each sensor and are labelled with the time in milliseconds since the first hit. A line is drawn from each hit at an angle determined by the speed of the vehicle. Since the speed of each vehicle is determined by the first A and B hits, then the first A and B hit lines will always overlap.

Subsequent hit lines are drawn at the same angle, and under perfect operating conditions the corresponding A and B pairs will overlap. Any gap between these pairs of hits indicates a lateral movement in the sensors, or a change in vehicle velocity.

The black triangles on the **X** line represent "axles" used by MCReport, after processing and filtering, to classify the vehicle

The time and distance between sensor hits can be measured using the inspector's time markers. Moving the mouse over the timeline moves the **Offset** marker. Clicking will move the **Anchor** marker to the current location. The **Delta** field at the top is the difference between the anchor and offset markers.

Queued Vehicles

The Queued Vehicles report is a variation of the Individual Vehicles report. Vehicles are grouped based on the Separation vehicle filter setting in the report Profile. For example, with a Separation filter set to less than four seconds, all vehicles travelling less than four seconds apart will be listed, followed by a blank line. This is useful for examining queues of vehicles.

```
DS Axle Num Ht YYYY-MM-DD hh:mm:ss Dr Speed   Wb  Hdwy   Gap Ax Gp  Rho Cl Nm        Vehicle
00 000004ce 04 2005-03-29 10:59:19 AB  69.2   2.4  10.5  10.4  2  2 1.00  2 00000020     SV o o
00 000004d2 04 2005-03-29 10:59:22 AB  63.8   4.2   3.1   3.0  2  2 1.00  4 00000020    TB2 o    o
00 000004d6 04 2005-03-29 10:59:24 AB  61.8   2.6   1.6   1.4  2  2 1.00  2 00000010     SV o o

00 000004ec 12 2005-03-29 10:59:52 AB  56.1  14.8   9.0   7.9  6  3 1.00 10 00020042   ART6 o  oo       ooo
00 000004f8 04 2005-03-29 10:59:53 AB  55.2   2.2   1.6   0.6  2  2 1.00  2 00000020     SV o o
00 000004fc 04 2005-03-29 10:59:55 AB  61.7   3.0   1.6   1.4  2  2 1.00  2 00000020     SV o o
00 00000500 04 2005-03-29 10:59:56 AB  60.0   2.8   1.4   1.2  2  2 1.00  2 00000020     SV o o
00 00000504 04 2005-03-29 10:59:59 AB  59.2   4.9   2.4   2.3  2  2 1.00  4 00000020    TB2 o   o
00 00000508 04 2005-03-29 11:00:00 AB  61.0   2.8   1.5   1.2  2  2 1.00  2 00000020     SV o o
00 0000050c 04 2005-03-29 11:00:04 AB  63.5   4.8   3.5   3.3  2  2 1.00  4 00000010    TB2 o   o

00 0000051a 06 2005-03-29 11:00:53 AB  65.3  11.9  23.5  23.4  3  3 1.00  7 00000020   ART3 o    o       o
00 00000520 04 2005-03-29 11:00:56 AB  62.5   2.5   2.9   2.3  2  2 1.00  2 00000010     SV o o
      ...     ...    ...       ...     ...    ...    ...   ...      ...     ...    ...   ...
```

Queued Vehicles Sample

Speed Statistics

Overview

The Speed Statistics report provides a table of speed bin distribution with multipliers, in a single page format for the entire tagged data.

The first block is MCReport's standard speed statistics block, which shows all speed limits and percentiles per the **Speed** page of the report's Advanced Profile options.

Vehicles = 1127611
Posted speed limit = 80 km/h, Exceeding = 438231 (38.86%), Mean Exceeding = 85.82 km/h
Limit 1 (PSL + 5) (80 * 100%) + 5 = 85 km/h, Exceeding = 191266 (16.96%)
Limit 2 (PSL + 10%) (80 * 110%) + 0 = 88 km/h, Exceeding = 107025 (9.49%)
Maximum = 159.6 km/h, **Minimum** = 10.2 km/h, **Mean** = 77.3 km/h
85% Speed = 85.3 km/h, **95% Speed** = 91.1 km/h, **Median** = 77.8 km/h
20 km/h Pace = 68 - 88, **Number in Pace** = 868975 (77.06%)
Variance = 90.07, **Standard Deviation** = 9.49 km/h

Speed Statistics Block Sample

The Speed Bins table provides bin totals, plus cumulative totals above and below the upper limit of each bin (highlighted in bold).

Speed Bins

Speed		Bin		Below		Above		Energy		vMult		n * vMult
0 - 10		0	0.0%	0	0.0%	1127611	100.0%	0.00		0.00		0.00
10 - 20		74	0.0%	74	0.0%	1127537	100.0%	0.89		0.00		0.00
20 - 30		858	0.1%	932	0.1%	1126679	99.9%	3.62		0.00		0.00
30 - 40		1729	0.2%	2661	0.2%	1124950	99.8%	25.14		0.00		0.00
40 - 50		7690	0.7%	10351	0.9%	1117260	99.1%	394.09		0.00		0.00
50 - 60		36929	3.3%	47280	4.2%	1080331	95.8%	2446.95		0.00		0.00
60 - 70		159851	14.2%	207131	18.4%	920480	81.6%	15012.14		0.00		0.00
70 - 80		482249	42.8%	689380	61.1%	438231	38.9%	54137.10		0.00		0.00
80 - 90		365441	32.4%	1054821	93.5%	72790	6.5%	36517.89		1.00		365441.00
90 - 100		61422	5.4%	1116243	99.0%	11368	1.0%	3657.55		2.00		122844.00
100 - 110		8832	0.8%	1125075	99.8%	2536	0.2%	387.99		4.00		35328.00
110 - 120		1742	0.2%	1126817	99.9%	794	0.1%	94.03		8.00		13936.00
120 - 130		509	0.0%	1127326	100.0%	285	0.0%	19.10		16.00		8144.00
130 - 140		186	0.0%	1127512	100.0%	99	0.0%	20.24		32.00		5952.00
140 - 150		74	0.0%	1127586	100.0%	25	0.0%	0.00		64.00		4736.00
150 - 160		25	0.0%	1127611	100.0%	0	0.0%	0.00		128.00		3200.00
160 - 170		0	0.0%	1127611	100.0%	0	0.0%	0.00		0.00		0.00
170 - 180		0	0.0%	1127611	100.0%	0	0.0%	0.00		0.00		0.00
180 - 190		0	0.0%	1127611	100.0%	0	0.0%	0.00		0.00		0.00
190 - 200		0	0.0%	1127611	100.0%	0	0.0%	0.00		0.00		0.00

Total Speed Rating = 559581.00
Total Moving Energy (Estimated) = 112716.73

Speed Statistics Speed Bins Sample

The Energy calculations use the standard formula: $e = \tfrac{1}{2}mv^2$ where **m** is the estimated vehicle gross mass from the Advanced Profile mass table. The value is always reported in MegaJoules.

The **vMult** column is each speed bin's multiplier, with **n * vMult** the product of each speed bin's total volume and multiplier. The total gives the Speed Rating for the entire data.

The final block in this report summarises the cumulative totals for each of the speed limits specified in the Advanced Profile options.

Speed limit fields

	Limit		Below		Above	
0	80 (PSL)		689380	61.1%	438231	38.9%
1	85 (PSL + 5)		936345	83.0%	191266	17.0%
2	88 (PSL + 10)		1020586	90.5%	107025	9.5%

Speed Statistics Limits block sample

By Hour

The hourly variant of the Speed Statistics report provides all speed statistics grouped by hour of day, in a single page format for the entire tagged data. Additional columns are appended for total vehicles exceeding each of the speed limits defined in the Advanced Profile options.

Hour Bins (Partial days)

Time	Bin		Min	Max	Mean	Median	85%	95%	>PSL 80 km/h		Limit 1 85 km/h PSL + 5		Limit 2 88 km/h PSL + 10%	
0000	11601	1.0%	1.3	158.3	81.7	81.0	89.6	97.6	6670	57.5%	3542	30.5%	2266	19.5%
0100	7286	0.6%	50.5	169.5	84.0	82.4	91.4	101.2	4739	65.0%	2679	36.8%	1814	24.9%
0200	4827	0.4%	14.2	169.2	83.7	82.8	92.5	101.5	3168	65.6%	1897	39.3%	1299	26.9%
0300	4731	0.4%	0.0	159.6	84.6	83.2	93.6	102.2	3223	68.1%	1971	41.7%	1383	29.2%
0400	6614	0.6%	5.5	159.5	85.0	83.5	93.2	100.8	4676	70.7%	2884	43.6%	1992	30.1%
0500	17587	1.6%	2.9	143.7	84.9	83.9	92.5	99.0	12818	72.9%	7755	44.1%	5205	29.6%
0600	46035	4.1%	2.8	144.2	81.9	81.4	88.6	94.3	27224	59.1%	13804	30.0%	8116	17.6%
0700	78749	7.0%	0.0	133.9	75.7	76.3	83.9	88.6	25545	32.4%	9743	12.4%	4826	6.1%
0800	86287	7.6%	3.1	153.9	72.7	74.2	82.4	87.5	20943	24.3%	7793	9.0%	3948	4.6%
0900	66800	5.9%	2.4	145.6	77.1	77.4	84.6	90.0	24130	36.1%	9903	14.8%	5265	7.9%
1000	64155	5.7%	3.7	142.7	77.2	77.4	85.0	90.0	23286	36.3%	9599	15.0%	5174	8.1%
1100	66378	5.9%	2.3	138.2	77.0	77.0	84.6	89.6	23561	35.5%	9399	14.2%	4918	7.4%
1200	70013	6.2%	2.4	150.5	76.6	76.7	84.2	89.6	23682	33.8%	9594	13.7%	5086	7.3%
1300	67360	6.0%	0.0	149.3	77.0	77.0	84.6	90.0	23972	35.6%	9660	14.3%	5147	7.6%
1400	69167	6.1%	0.0	144.9	77.2	77.4	84.6	90.0	24924	36.0%	10049	14.5%	5421	7.8%
1500	79571	7.1%	0.0	153.0	75.9	76.3	84.2	89.3	25570	32.1%	10298	12.9%	5473	6.9%
1600	92027	8.2%	0.0	172.5	75.0	75.6	83.5	88.6	27790	30.2%	10669	11.6%	5358	5.8%
1700	92431	8.2%	0.0	140.7	73.8	75.6	83.5	88.2	27793	30.1%	10540	11.4%	5261	5.7%
1800	62081	5.5%	0.0	161.4	79.1	79.2	86.4	91.4	28462	45.8%	12196	19.6%	6605	10.6%
1900	38631	3.4%	3.7	150.0	81.1	80.6	87.8	94.0	20947	54.2%	9973	25.8%	5788	15.0%
2000	28888	2.6%	2.7	174.8	82.1	81.4	88.9	95.8	16908	58.5%	8355	28.9%	5085	17.6%
2100	26615	2.4%	3.6	153.9	81.8	81.0	88.6	94.7	15311	57.5%	7447	28.0%	4421	16.6%
2200	22823	2.0%	4.1	171.4	81.7	81.0	88.6	95.0	12841	56.3%	6215	27.2%	3808	16.7%
2300	17470	1.5%	0.0	185.0	80.8	81.0	89.6	96.8	10061	57.6%	5314	30.4%	3379	19.3%
----	1128127	100.0%	0.0	185.0	77.3	77.8	85.3	91.1	438244	38.8%	191279	17.0%	107038	9.5%

Speed Statistics by Hour sample

Separation Statistics

Overview

The Separation Statistics report provides a table of separation bin distribution with multipliers, in a single page format for the entire tagged data. Remember that separation can be defined as headway or gap in the Advanced Profile options.

Separation Bins

Separation		Bin		Below		Above		sMult		n * sMult
0.00 -	0.50	129752	11.8%	129752	11.8%	968884	88.2%	8.00		1038016.00
0.50 -	1.00	403490	36.7%	533242	48.5%	565394	51.5%	4.00		1613960.00
1.00 -	2.00	263272	24.0%	796514	72.5%	302122	27.5%	2.00		526544.00
2.00 -	4.00	157403	14.3%	953917	86.8%	144719	13.2%	1.00		157403.00
4.00 -	8.00	85657	7.8%	1039574	94.6%	59062	5.4%	0.00		0.00
8.00 -	16.00	37270	3.4%	1076844	98.0%	21792	2.0%	0.00		0.00
16.00 -	32.00	13771	1.3%	1090615	99.3%	8021	0.7%	0.00		0.00
32.00 -	64.00	4290	0.4%	1094905	99.7%	3731	0.3%	0.00		0.00
64.00 -	128.00	1944	0.2%	1096849	99.8%	1787	0.2%	0.00		0.00
128.00 -	1000.00	0	0.0%	1096849	99.8%	1787	0.2%	0.00		0.00

Total Separation Rating = 3335923.00

Separation Statistics Sample

The Separation Bins table provides bin totals, plus cumulative totals above and below the upper limit of each bin (highlighted in bold). The **sMult** column is each separation bin's multiplier, with **n * sMult** the product of each separation bin's total volume and multiplier. The total gives the Separation Rating for the entire data.

By Hour

The hourly variant of the Separation Statistics report provides separation bin distribution grouped by hour of day.

Hour Bins

Time	Bin	Mean	Sep 0.0 0.5	Sep 0.5 1.0	Sep 1.0 2.0	Sep 2.0 4.0	Sep 4.0 8.0	Sep 8.0 16.0	Sep 16.0 32.0	Sep 32.0 64.0	Sep 64.0 128.0	Sep 128.0 1000.0
0000	11206	21.0	3	222	1195	1735	2068	2239	1971	1130	444	197
0100	7018	31.5	0	86	528	822	1006	1371	1403	1023	477	298
0200	4657	48.2	1	26	223	356	493	804	986	916	503	343
0300	4506	58.6	0	11	178	279	467	735	962	967	523	377
0400	6199	42.3	1	47	292	544	776	1157	1385	1108	546	340
0500	16262	16.1	10	583	2199	2899	3339	3308	2340	1089	349	145
0600	42520	18.6	73	4809	13098	9981	7231	4586	1916	599	175	37
0700	72229	12.5	96	11304	32292	15957	7509	3340	1210	386	94	22
0800	79364	12.0	103	11660	36690	18255	7965	3266	1039	306	38	15
0900	62367	7.2	83	6899	23016	16276	9854	4563	1394	253	12	0
1000	60618	6.6	79	6187	21426	16345	10014	4894	1453	192	8	3
1100	65306	6.2	93	7320	24217	17254	10287	4713	1239	151	3	5
1200	70013	6.6	101	8486	27238	18227	10252	4460	1121	111	0	1
1300	67360	6.9	92	7971	25510	17664	10192	4537	1234	131	6	3
1400	69167	10.5	104	8736	26558	17828	10181	4428	1156	154	3	0
1500	79571	8.6	133	11833	33338	19593	9780	3819	942	101	2	0
1600	92027	7.5	156	15583	42098	21305	8976	3162	631	81	4	5
1700	92431	5.0	150	14607	42984	22235	8659	3010	643	88	9	16
1800	62081	6.9	86	7084	23016	15923	9606	4582	1515	242	8	1
1900	38631	8.0	36	2690	10227	9489	7835	5300	2333	649	55	2
2000	28888	9.9	24	1307	5859	6592	6431	4978	2636	917	133	4
2100	26615	11.6	16	1135	5092	5872	5949	4690	2657	1007	182	7
2200	22799	11.9	5	759	3911	4803	5048	4321	2592	1032	298	28
2300	16801	16.4	6	407	2305	3038	3485	3394	2512	1138	418	95
----	1098636		1451	129752	403490	263272	157403	85657	37270	13771	4290	1944

Separation Statistics by Hour Sample

Data Scan

The Data Scan report validates a single data file, based on a set of adjustable rules and boundaries. This report is primarily intended as an automated data check for Scripting.
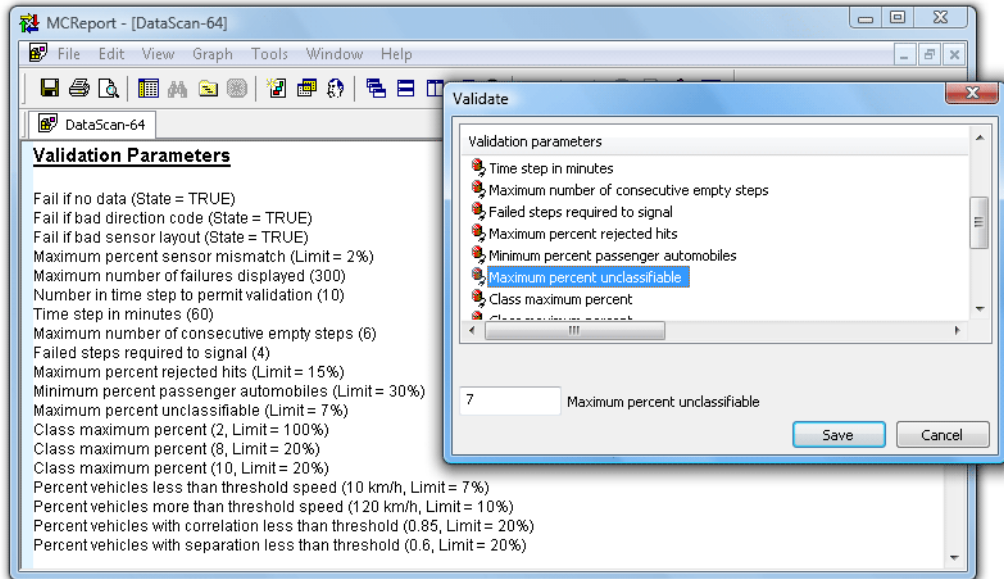
Data Scan validation parameters

Spectrum of Axle Hits

The Spectrum of Axle Hits report, or Hit Spectrum, is a histogram of the time difference between successive sensor hits. This chart is one of the most useful tools for instantly verifying data quality.

MCReport scans a dataset, and keeps a tally of the time between successive sensor hits, grouping them by the order of hits: **A to A**, **B to B**, **A to B** or **B to A**. The Hit Spectrum shows the **A to A** and **B to B** plots by default - the time between hits on the same sensor provides the most useful information.

The time between sensor hits can vary over a huge range, so the horizontal axis is logarithmic. This allows a range from one millisecond to ten million seconds.

A typical Hit Spectrum is characterised by the following:

1. With good quality classification data, the A to A and B to B plots should perfectly overlay each other. Only the top-most plot may be visible.
2. Peaks in the left-most region, from around 10 to 30 milliseconds, depict spurious hits caused by sensor noise.
3. A sharp peak somewhere around 100ms represents the product of speed and wheelbase of the most frequently recorded vehicles (usually cars).
4. Additional smaller peaks in this region are due to bi-axle and tri-axle groups, or trailers.
5. A trough approaching the x-axis indicates low congestion.
6. The remainder of the Hit Spectrum, usually above 400ms, is characterised by a broad hump that represents the distribution of inter-vehicle times.
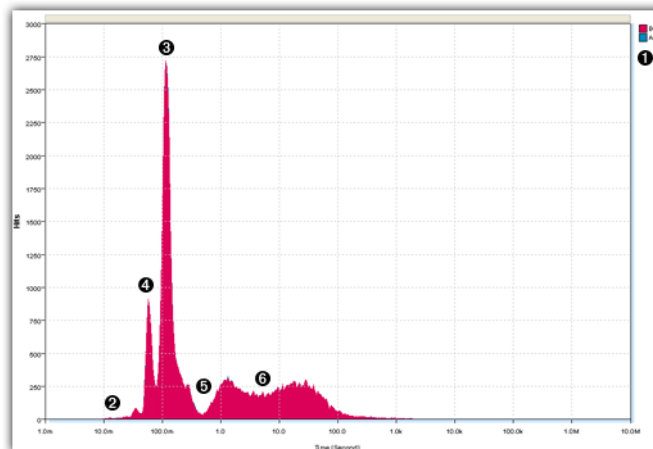
Typical Hit Spectrum

Correlation of Axle Hits

The Correlation of Axle Hits report is a time-based plot of uncorrelated axle hits per integration period. A correlated axle is one where there is a matching A and B sensor hit for any given axle, within a small margin of error. Perfect data quality would have no uncorrelated axles, however a small number is common due to sensor noise, simultaneous vehicle crossings on bidirectional sites, and vehicles changing lanes.
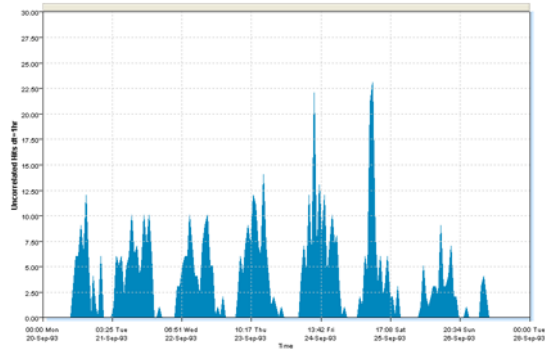
Correlation of Axle Hits Sample

Audit of Data Quality

The Audit of Data Quality report is a time-based plot comparing the number of axles recorded on both the A and B sensors, and displays a graph of the difference between them. Note that this is a comparison of hit counts after MCReport has processed the raw data, so is a measure of the quality of data used to classify vehicles. This may differ from the Hits plot in the File Tree, which is raw data.

This report immediately highlights single sensor failures where the trace deviates significantly from the zero horizontal axis. The Header Sheet also contains additional axle and vehicle statistics.
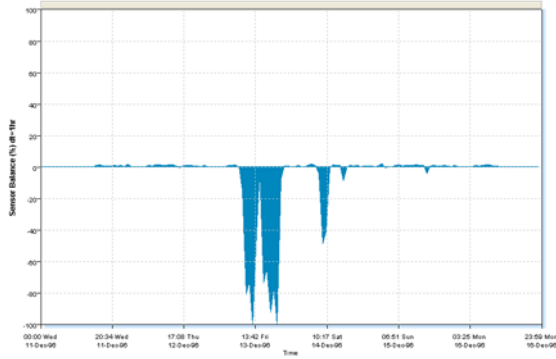
Audit of Data Quality sample - one sensor fails mid-survey

Axle Position Histogram

The Axle Position Histogram is a histogram of inter-axle spacings within vehicles. This report will usually have a characteristic shape corresponding to common axle spacings, making it an extremely useful tool for verifying data quality.

The Axle Position Histogram can be characterised by:

1. A group of spikes representing the most common passenger vehicles, and light trucks.
2. Spikes corresponding to the double and triple axle groups of heavy vehicles (for datasets containing a noticeable percentage of these vehicles).
3. Smaller spikes corresponding to the longer inter-axle spans in heavy vehicles, such as buses.
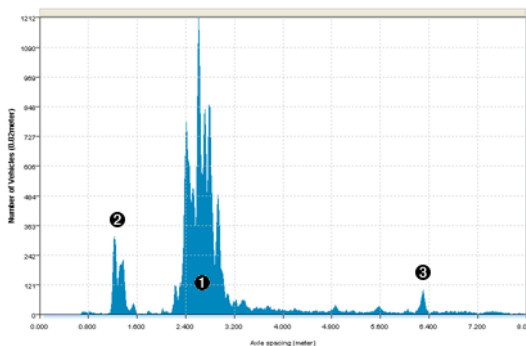
Axle Position Histogram Sample

The Axle Position Histogram can be used to check for:

• matching sensor length, and

• correct sensor spacing.

Characteristic spikes in the histogram can be checked against known good data from the same area. If these spikes deviate in position by a significant amount, one of these problems may exist, and speed and classification should be considered suspect for this dataset.

For example, it is possible to target the double axle group on the back of an articulated truck, which is usually one of a few standard distances apart. Selecting **Properties** from the report's right-click menu will display the axle spacings filter.

Inter-axle spacings
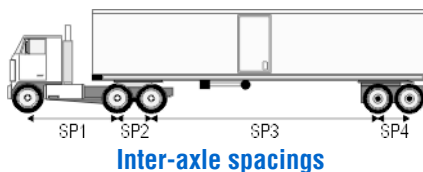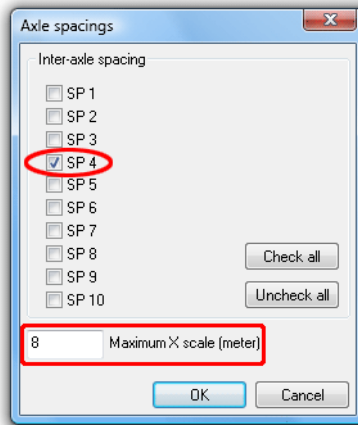
Selecting **SP4** in this case will display only the spacings between axles four and five. Note also the X-axis scale can be modified to increase resolution.

Filtering should create a few clearly defined spikes that can be verified using the cross-hairs. Again, deviation from known values may indicate a sensor installation problem.
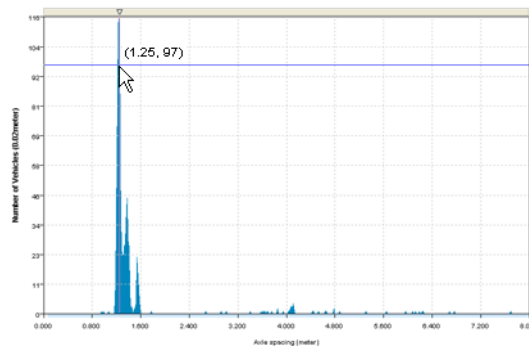
Filtered Axle Position Histogram

For bidirectional data *with a suspected problem*, it is possible to distinguish between different sensor length and incorrect spacing. Different sensor length will result in spacings that are too short in one direction, and too long in the other. If filtering for one direction using the report Profile's direction filter moves the Axle Position Histogram left or right, this indicates different sensor length. If the report is unmoved, then incorrect spacing is the likely cause.

Vehicle Flow

The Vehicle Flow report is a time-based plot of total vehicle volume.

Note that the Vehicle Flow report is a measure of vehicles per time period. The time period, or integration time is displayed next to the vertical axis. For example, with an integration time of one hour, each point on the graph represents total vehicles per hour.
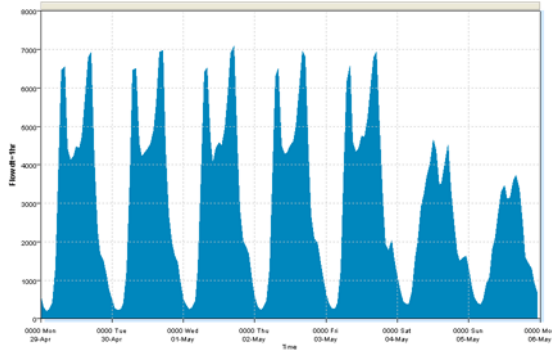
Vehicle Flow Sample

The Vehicle Flow report has a variable display span and integration time using the report's Graph Toolbar.

Velocity Dispersion

The Velocity Dispersion report is a time-based plot showing relative speed densities. This report highlights the relationship between speed and traffic density at a site. Periods of congestion are especially obvious.
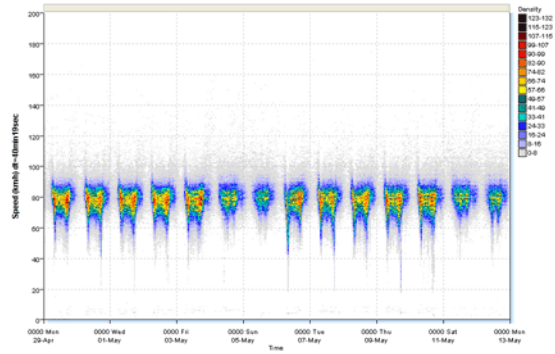
Velocity Dispersion Sample

Speed

The Speed report is a time-based plot of average vehicle speed per selected integration period. By default, the report also shows a plot of maximum vehicle speed, and a horizontal marker for the posted speed limit (PSL).
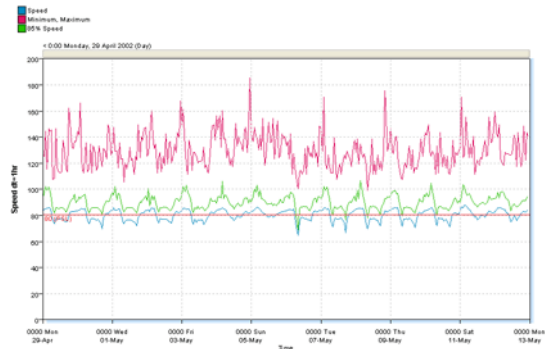
Speed Report sample, with mean, 85th percentile and maximum speed.

Right-clicking on the report and selecting **Properties** displays the report's options.

Speed report options

Show Min trace displays a plot of minimum speed per integration period. **Show Percentile** displays a plot for the first percentile, and **Show Extra Speed Limits** displays horizontal markers for each of the speed limits, per the settings in the **Speed** page of the report's Advanced Profile options.

The **Annotation at marker** is a piece of text that appears next to the time of the marker, which can be placed with the cross-hairs. The drop-down list is also user-editable.

The Speed report also has two special **Display Span** options for a **Virtual Day** or **Virtual Week.**

Stacked Flow

The Stacked Flow reports are similar to the Flow report, but with either vehicle class or speed bin differentiation.

Total flow per integration period is represented by a stack of bars for each included class or speed bin. Fewer classes or speed bins may be required to give sufficient detail. Aggregating a class scheme (usually light, medium and heavy vehicles) often gives extremely useful results.
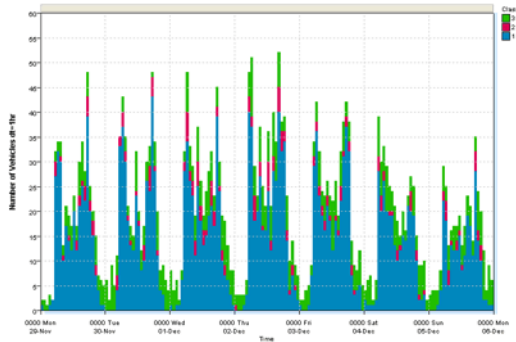
Flow Stacked by Class sample, using an aggregated class scheme

Another example is two speed bins, one either side of the PSL, highlighting total vehicles exceeding the PSL.
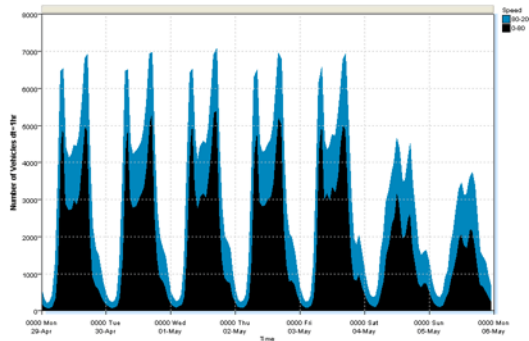
Flow Stacked by Speed sample showing vehicles above and below the PSL

Clustered Flow

The Clustered Flow reports are a variation of the Stacked Flow reports. Rather than stacking the classes or speed bins, each is plotted side-by-side.

These reports require a large integration time or a small display span to give sufficient resolution.
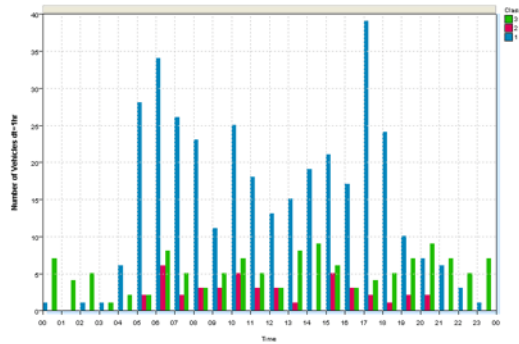
Flow Clustered by Class sample, with aggregated class scheme
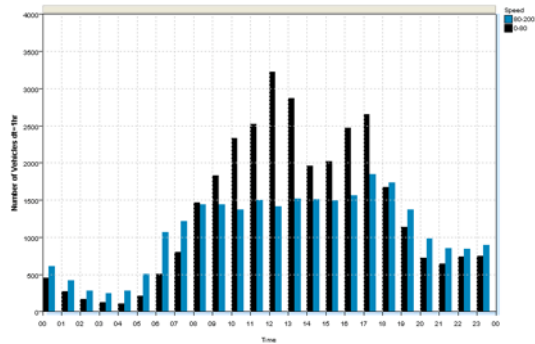
Flow Clustered by Speed Bins sample, showing vehicles exceeding the PSL

Separation

The Separation report is a time-based plot of average vehicle separation per integration period.

Remember that separation can be optionally defined as headway or gap in the report's Advanced Profile options.
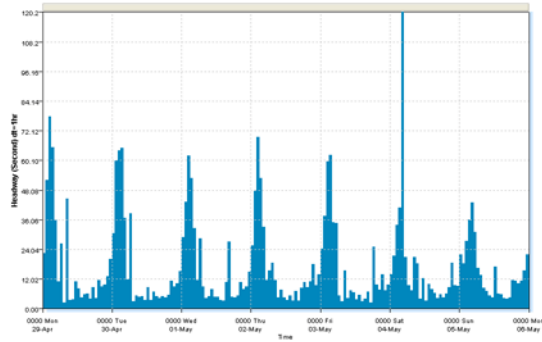
Separation report sample

Dispersion Plots

MCReport has four dispersion or scatter plots:

- Speed vs Separation
- Volume vs Speed
- Density vs Volume
- Volume vs Density

Every vehicle is represented by a single point on the graph. Point density is indicated by the density colour glide specified in the report Profile.

These plots portray differing characteristics of traffic flow, which are normally based on theoretical values in traffic engineering text books. They can be very useful when analysing data on roads that are at or near capacity, or for before and after studies of road works such as traffic calming.

The **Granularity** option in the **Format** page of the Advanced Profile options adjusts the resolution of these reports. A higher granularity gives finer resolution, but require more vehicles to build any significant density.
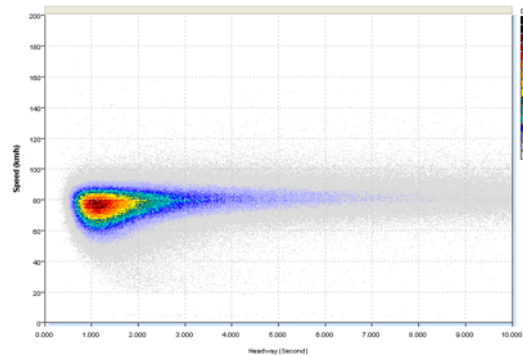
Speed vs Separation Dispersion Plot sample

The horizontal axis of the Speed vs Separation can be modified to give more resolution. Simply right-click, and select **Properties.**
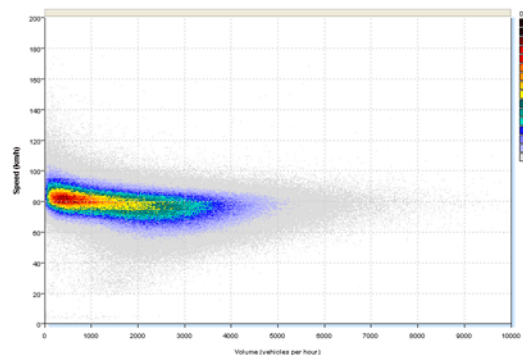
Speed vs Volume Dispersion Plot sample

Bin charts

MCReport has two bin charts - the Class bin report, and the Speed bin report. These reports provide a graphical representation of the proportions of class and speed bins respectively. The Header Sheet also contains a table of class/speed bin totals and percentages.

Bin charts have four renderings, each providing a unique data representation. The most common renderings are bar or column charts, and pie charts.

The pie chart rendering is a three-dimensional, dynamic chart. The chart can be rotated to the angle that best represents the data by clicking and dragging the black circle in the centre. Individual pie slices can be highlighted by clicking the coloured circle next to the class or speed bin label.
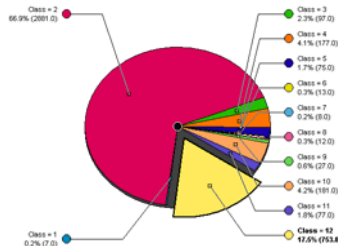
Class Bin report sample, with pie rendering
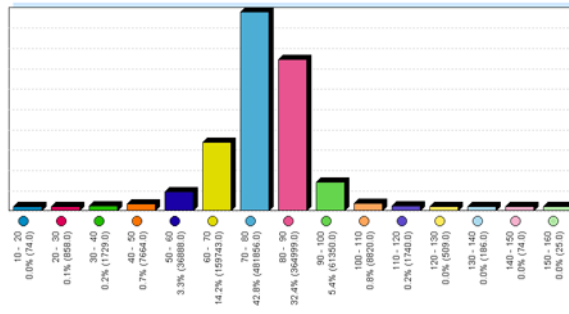
Speed Bin report sample, with bar rendering

Speed Histogram

The Speed Histogram report provides the speed profile at a site. A normal curve, with the same mean and standard deviation, is plotted to help gauge the skew of the speed distribution.

Optional vertical markers also show the speed percentile, speed pace and posted speed limit - all as specified in the report's Profile.
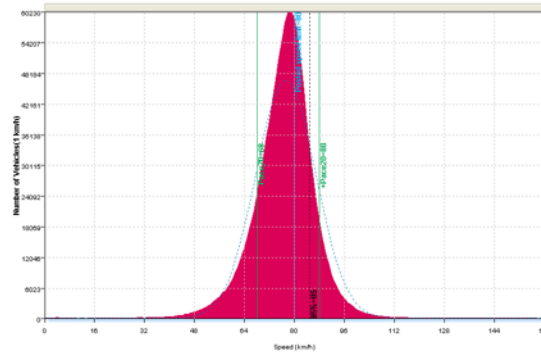
Speed Histogram sample

Right-clicking on the report and selecting **Properties** displays the report's options, most of which are self-explanatory.
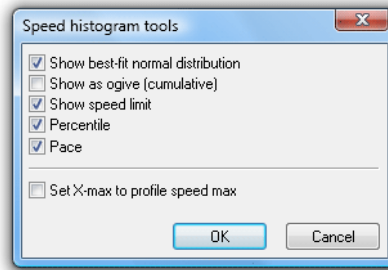
Speed Histogram Options

The **Set X-max to profile speed max** option changes the maximum value of the speed axis to be the upper limit of the Profile's speed filter.

The **Show as ogive** option displays a cumulative total of vehicles.
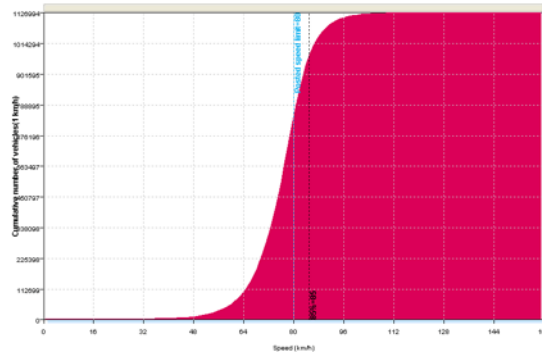
Speed Histogram sample in cumulative mode

Wheelbase Histogram

The Wheelbase Histogram report presents a graphical distribution of vehicle wheelbases, highlighting common vehicle lengths.

The Axle Position Histogram report also shows intra-vehicle axle spacings.
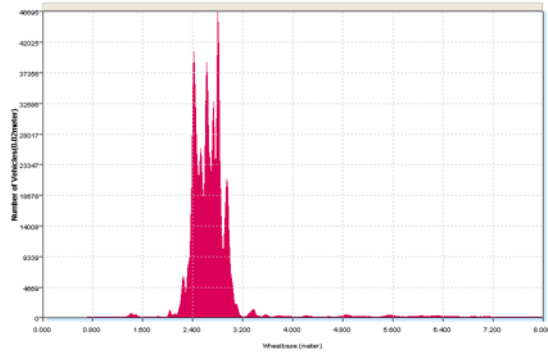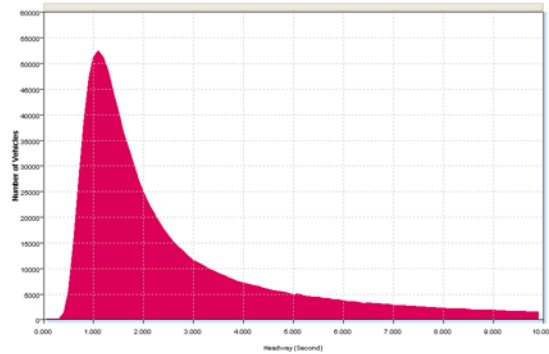

Wheelbase Histogram Sample

The X-axis scale can be changed, by right-clicking the report and selecting **Properties.**

Separation Histogram

The Separation Histogram report provides a graphical distribution of the separation (in time) between vehicles.

Separation Histogram Sample

The X-axis scale can be changed, by right-clicking the report and selecting **Properties.** This allows for examination of the behaviour of close-following vehicles.

The Speed vs Separation dispersion plot also examines this behaviour, but takes into account vehicle speed.

The definition of separation as either headway or gap can be set in the report's Advanced Profile options.

Special Reports

Most of the reports in the **Special** group of reports are highly application-specific, emulating other "standard" report formats.

www.metrocount.com