

## Speed Analysis and Law Enforcement

Many law enforcement officials are particularly interested in the monetary worth of a road, in terms of speed fines. Beyond the potential revenue raise, a road's value can give insight into the location's relative speed hazard.

MetroCount data enables you to calculate the potential worth of any road. To find out a location's value, simply use your local speed infringement categories to set your bins in MCRreport. You can then set a "speed factor" for each bin that is equal to the penalty.

Using these infringement categories and speed factors with a Custom List report (of hourly speed factor totals) can yield startling results.

### Hazard Ranking

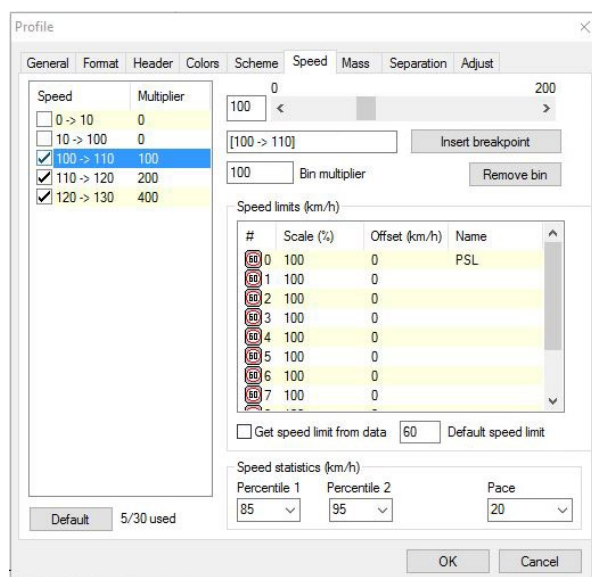
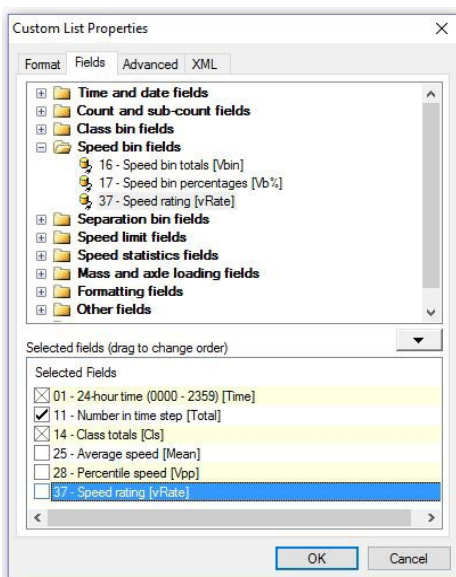
Using the speed factor this way does show the potential revenue from speed fines. It does so by assigning a weighting to each bin. As the speed increases, so does the associated weighting.

To visualise the hazard ranking, one needs to understand it is directly proportional to the total speed factor. In other words, if a site reports a high potential monetary value, this also means its hazard ranking is high.

MetroCount data allows you to rank your sites according to relative speed hazard, effectively cancelling out other factors such as time-of-day and traffic congestion.

### Using Speed Factors in MTE®

1. Select the data file you wish to analyse
2. From the *Report Vortex*, create a *Custom List Report*
3. From the *Custom List Reports* opt for the *Speed Bins with Grand Total* report and click *Modify*
4. Open the *Fields* tab and expand the *Speed bin fields*
5. Select *Speed rating [vRate]*, drag in the bottom panel and click *OK*
6. Right click inside you report and select *Local Profile*
7. In the upper right corner click *Advanced*
8. Select the *Speed* tab and use the Bin multiplier to set values for each of your speed bins (eg. fine for a speed between 100-110 kmh in a 100kmh area is \$100; fine for a speed between 110-120kmh is \$200)
9. That's it! The vRate column shows your road's potential monetary revenue



* Tuesday, 30 August 2011									
Time	Total	Vbin 100	Vbin 110	Vbin 120	Mean	Vpp 85	vRate		
0000	36	4	0	0	87.8	98.0	400.0		
0100	18	1	1	0	86.7	96.3	300.0		
0200	13	0	0	0	84.4	87.5	0.0		
0300	22	0	0	0	83.8	90.6	0.0		
0400	35	2	0	0	86.4	93.0	200.0		
0500	128	0	0	1	85.7	91.5	400.0		
0600	260	1	0	0	82.6	87.0	100.0		
0700	288	1	0	0	82.2	86.1	100.0		
0800	346	1	0	0	79.9	84.8	100.0		
0900	325	1	0	0	80.9	86.0	100.0		
1000	338	1	0	0	80.4	85.3	100.0		
1100	313	0	0	0	79.5	85.8	0.0		
1200	327	2	0	0	82.8	88.6	200.0		
1300	372	4	0	0	82.0	87.6	400.0		
1400	414	1	0	0	80.9	86.2	100.0		
1500	572	1	0	0	80.9	85.9	100.0		
1600	620	1	0	0	82.1	87.0	100.0		
1700	656	0	0	0	80.9	86.3	0.0		
1800	357	3	0	0	81.4	86.0	300.0		
1900	196	1	0	0	81.9	87.8	100.0		
2000	121	0	0	0	82.2	88.1	0.0		
2100	114	0	0	0	83.8	89.6	0.0		
2200	64	0	0	0	84.5	92.3	0.0		
2300	39	0	1	0	84.3	91.7	200.0		
07-19	4928	16	0	0	81.2	86.3	1600.0		
06-22	5619	18	0	0	81.3	86.6	1800.0		
06-00	5722	18	1	0	81.4	86.6	2000.0		
00-00	5974	25	2	1	81.6	86.9	3300.0		

* Wednesday, 31 August 2011									
Time	Total	Vbin 100	Vbin 110	Vbin 120	Mean	Vpp 85	vRate		
0000	24	2	0	0	86.4	97.9	200.0		
0100	18	0	0	1	90.1	99.4	400.0		
0200	19	0	0	1	86.1	94.9	400.0		
0300	13	0	0	0	85.9	92.0	0.0		
0400	43	1	0	0	84.6	90.3	100.0		
0500	131	5	0	0	84.3	90.7	500.0		
0600	263	1	0	0	82.9	88.1	100.0		
0700	277	2	0	0	80.7	85.6	200.0		
0800	326	1	0	0	80.7	85.5	100.0		

## Road Safety Around Schools

### SPEED BINS AND FACTORS

Maintaining road safety around school is top priority. Various traffic calming measurements are taken to assure road safety, from reducing speed limits at certain hours, displaying special traffic signs and employing crossing guards. However, monitoring speeds in these areas is highly encouraged by road safety authorities.

The MetroCount tube-based and piezo-based systems retain information on each vehicle passing over their sensors. Consequently, data contains the speed of each vehicle, giving you a wide range of statistical options.

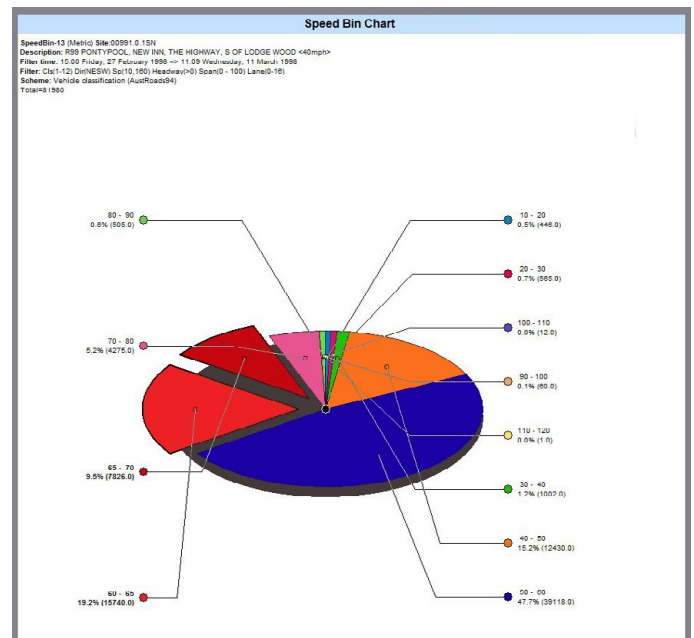
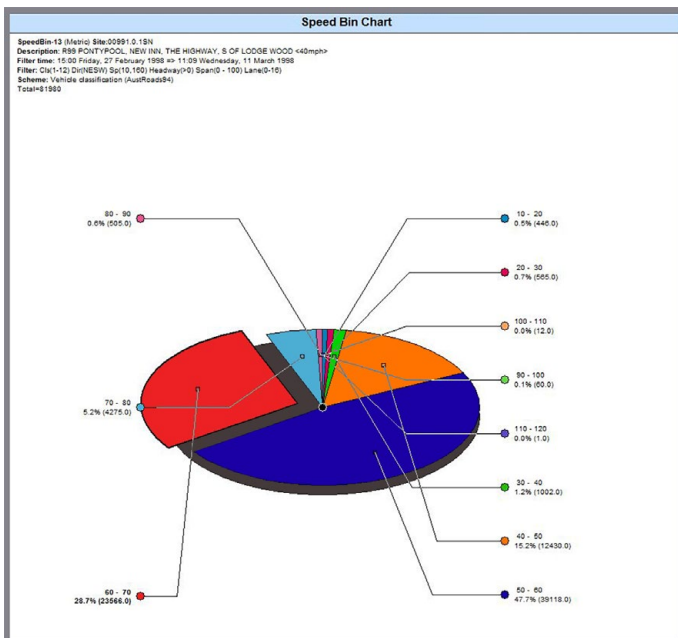
### Changing Speed Bins Post-Survey

Unlike other traffic counters, RoadPod® doesn't lock-in your speed "bins" before the survey. In fact, you can define any speed clusters during data analysis in MTE.

Depending on your chosen units, the default bins are either 10km/h or 5mph wide. However, these limits can be customised to suit your specific project. Likewise, the MTE software enables you to set a site's speed limit and select the statistics that are relevant to you (e.g. 85%, 95%, speed pace). This data can be visualised in a variety of reports or graphical representations.

### Changing Speed Bins in MTE®

1. Select the data file you wish to analyse
2. From the *Report Vortex*, choose *Charts - Binned Charts - Speed Bin Chart*
3. Once your chart is loaded, right click and choose *Local Profile*
4. Click the *Advanced* button
5. Click the *Speed* tab
6. Use the slider and *Add bin* button, check the bins you want to display



### Separating one speed bin into multiple bins

**!** When changing speed bins in MTE, think of the bin boundaries as "fence posts" of zero width: recorded speeds are always on one side of the post or the other.