

Speed Analysis and Law Enforcement

While playing a significant role in discouraging speeding, the police manpower is often limited. Thus, law enforcement officials are particularly interested in seeing how dangerous locations compare.

The MetroCount traffic monitoring systems enable prioritising road interventions efficiently. This is done in the MetroCount Traffic Executive software during data analysis. Vehicles can be divided into speed ranges (bins) and a risk factor can be applied to each bin.

For example, for each bin, you can set a multiplier factor based on standard infringement amounts over the speed limit. As the speed increases so does the associated bin weighting.

Hazard Ranking

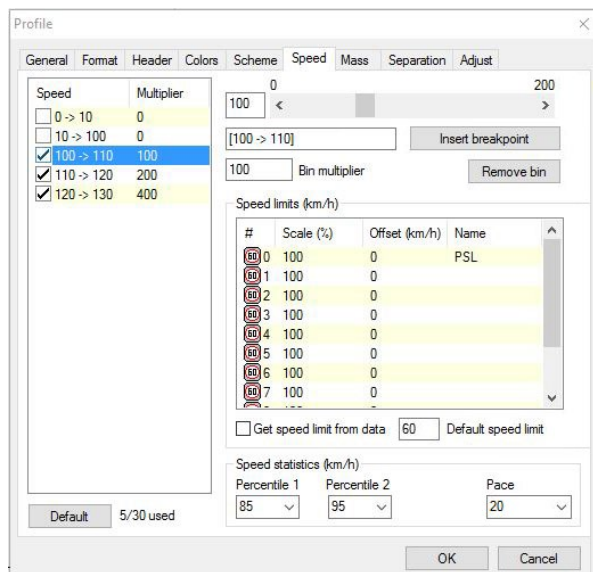
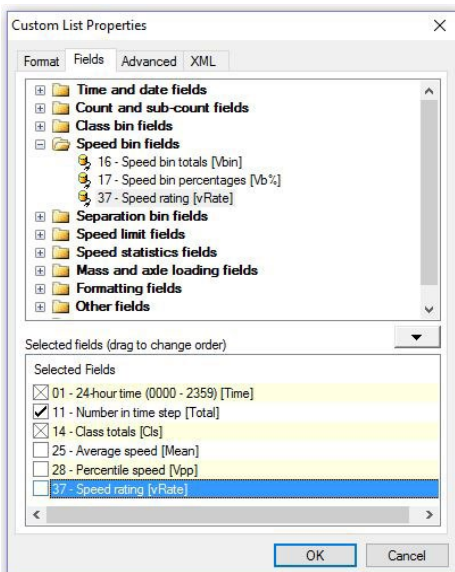
With MetroCount data, you can rank your sites according to their relative speed hazard based on the total speed multiplier over a set time period. This results in an apple to apple comparison of speed risk over a range of locations.

To visualise the hazard ranking, one needs to understand it is directly proportional to the total speed factor. Going back to our example, if a site reports a high infringement value, this also means its hazard ranking is high.

Using these speed factors with a **Custom List** report or hourly speed factor totals, not only indicates which roads are most dangerous but also the best time of the day for education and enforcement.

Using Speed Factors in MTE[®]

1. Select the data file you wish to analyse
2. From the **Report Vortex**, choose 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 to 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 (e.g. for speeds between 100-110 km/h a factor of 10; for speeds between 110-120km/h a multiplier of 20)
9. That's it! The **vRate** column shows your road's potential monetary revenue



* Tuesday, 30 August 2011										
Time	Total	Vbin	Vbin	Vbin	Mean	Vpp	vRate			
		100	110	120		85				
0000	36	4	0	0	87.8	88.0	400.0			
0100	18	1	1	0	86.7	96.3	300.0			
0200	13	0	0	0	84.4	97.5	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	258	1	0	0	82.2	86.1	100.0			
0800	346	1	0	0	79.9	84.5	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	88.8	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	81.1	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	111	0	0	0	81.2	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	Vbin	Vbin	Mean	Vpp	vRate			
		100	110	120		85				
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	3	0	0	84.3	90.7	300.0			
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 schools is top priority. Various traffic calming measures 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 RoadPod® systems retain information on each vehicle passing over their sensors. Consequently, data contains the speed of each vehicle, giving you numerous statistical options.

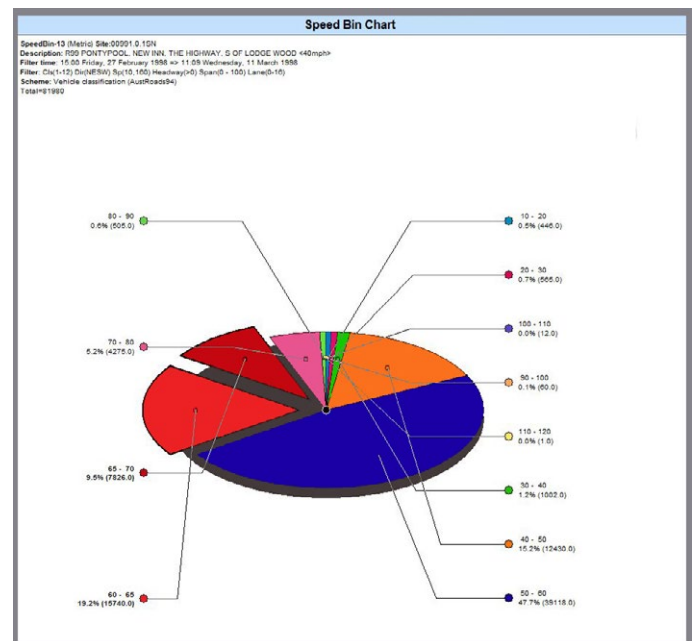
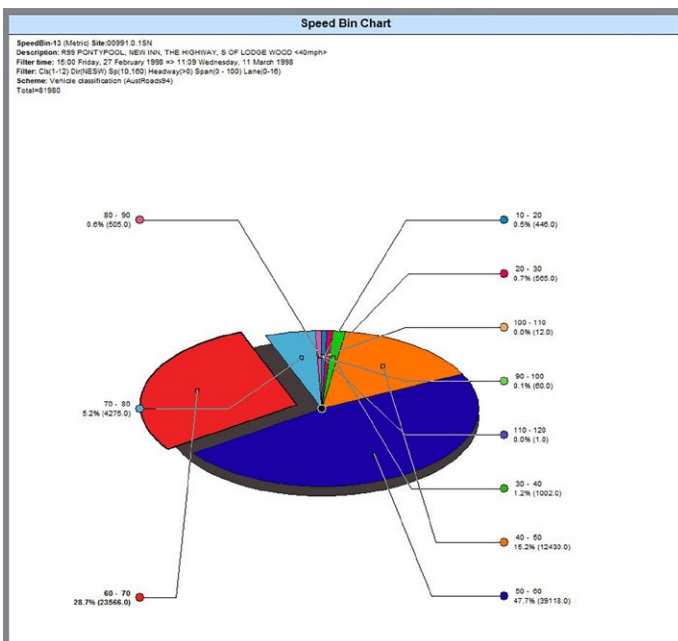
Changing Speed Bins Post-Survey

Unlike other traffic counters, RoadPod® doesn't lock you in to 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 10kmh 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.