

# Custom List Report

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## MTE User Manual

3.21

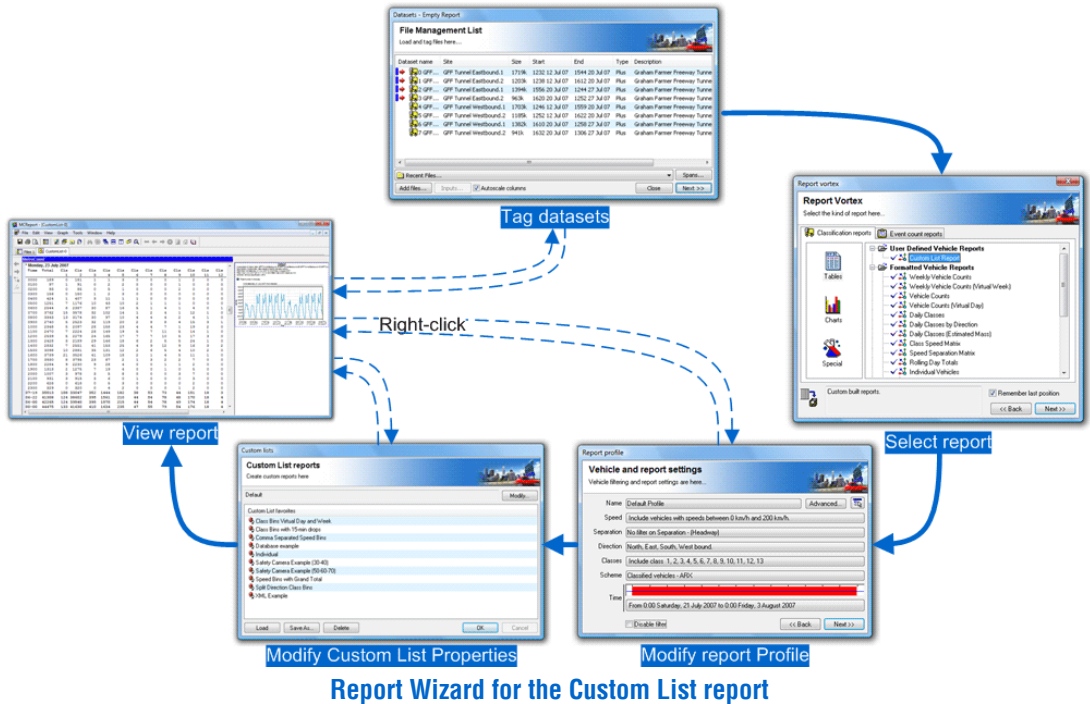
June 2009

# Generating a Custom List Report

## Report Wizard

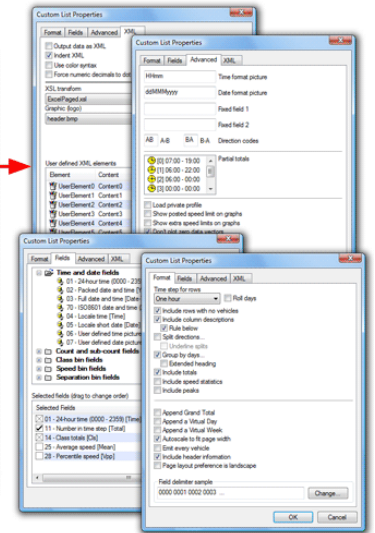
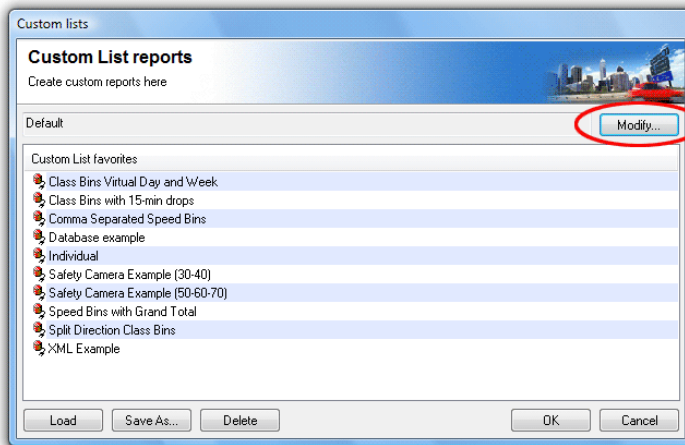
The Custom List report is a **Classification** report, under **Tables** in the Report Vortex. The Custom List report's properties are displayed as an additional step to the Report Wizard, just before the report is generated.

A Custom List report's properties can be accessed at any time via the report's right-click menu, just like the report's Local Profile. Custom Lists can also be easily saved for future use.



## Custom List Properties

The main Custom List dialog box is used for loading and saving Custom List formats, and for changing the current format.



### Custom List report properties

To load an existing Custom List format, select an item from the **Favorites** list and click the **Load** button, or simply double-click. The Custom List name will change to indicate the format has been loaded. Several examples are provided.

The **Save As** button writes the current Custom List format to a file, whose name will then appear in the **Favorites** list. Custom List format files have a **.xpt** extension, and should be stored in the **Profiles** folder in MTE's Documents folder.

The **Modify** button at the top leads to another dialog box, with the Custom List properties broken into four areas:

- **Format** - defines the layout of the report, specifically the rows and totals.
- **Fields** - defines the included columns, and their order.
- **Advanced** - miscellaneous options, including user-defined fields and totals.
- **XML** - options for exporting data via XML.

Most of these options are covered in subsequent sections. Exporting data via XML is covered in its own chapter.



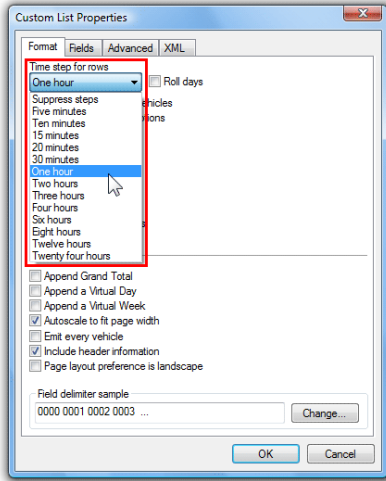
*Note:*

*The word **modified** will be appended to the Custom List format name when any properties are changed. To remove this, simply save the format.*

# Custom List Format

## Time Step Interval

The **Time Step** option is the interval over which vehicles are accumulated for each row in a Custom List report. The **Suppress steps** selection removes all data rows from the Custom List report, leaving only summary totals and statistics such as the Virtual Day or Week.

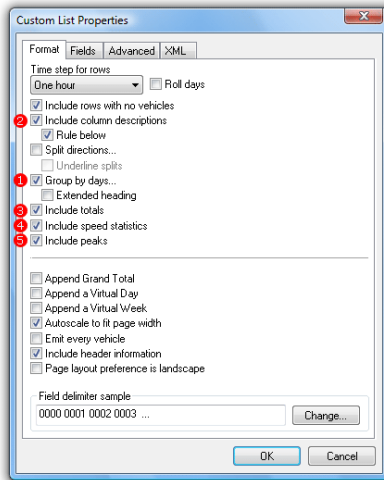


Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Mean	Vpp 85
0000	256	1	247	3	4	1	0	0	0	0	0	0	0	0	78.6	84.2
0100	226	0	223	1	2	0	0	0	0	0	0	0	0	0	79.3	85.0
0200	132	0	125	0	2	3	1	0	0	0	1	0	0	0	81.2	88.2
0300	111	1	101	0	6	2	1	0	0	0	0	0	0	0	81.6	88.9
0400	185	1	163	1	8	6	1	1	1	2	0	1	0	0	79.8	84.6
0500	450	6	410	5	14	7	0	0	1	1	5	1	0	0	80.1	85.7
0600	1343	5	1204	24	57	16	4	1	3	7	21	0	1	0	73.1	79.2
0700	2111	8	1965	33	69	9	4	2	7	5	6	1	1	0	60.1	72.0
0800	2161	7	2019	25	72	15	5	3	5	4	6	0	0	0	56.1	64.1
0900	1790	8	1637	16	90	15	4	3	3	5	8	1	0	0	66.5	73.8
1000	1619	4	1470	22	81	11	4	7	1	6	12	1	0	0	66.0	73.1
1100	1661	4	1516	18	83	14	4	8	1	6	7	0	0	0	66.1	73.1
1200	1669	6	1541	16	75	14	1	3	0	3	9	1	0	0	65.9	74.2
1300	1595	9	1452	14	85	15	3	4	2	8	3	0	0	0	67.4	74.9
1400	1701	4	1578	18	77	10	3	1	3	1	6	0	0	0	67.2	74.2
1500	1915	8	1789	25	69	5	2	3	5	4	5	0	0	0	64.3	70.9
1600	1436	3	1375	20	28	3	2	1	1	0	2	0	1	0	34.6	52.9
1700	1346	4	1318	8	16	0	0	0	0	0	0	0	0	0	29.6	38.2
1800	1654	8	1625	2	12	2	1	1	0	2	1	0	0	0	54.5	73.4
1900	1049	4	1027	3	12	0	0	1	1	0	0	1	0	0	73.6	79.6
2000	806	3	787	1	11	1	0	0	0	1	2	0	0	0	75.0	79.9
2100	742	3	727	2	7	1	0	0	0	0	2	0	0	0	76.2	81.0
2200	672	5	655	1	3	3	2	0	0	2	1	0	0	0	77.0	81.7
2300	466	3	453	1	6	2	0	0	0	0	1	0	0	0	77.3	82.4
07-19	28658	73	19285	217	757	113	33	36	28	44	65	4	2	1	58.9	72.0
06-22	24598	88	23030	247	844	131	37	38	32	52	90	5	3	1	61.4	74.5
06-00	25736	96	24138	249	853	136	39	38	32	54	92	5	3	1	62.1	75.6
00-00	27096	105	25407	259	889	155	42	39	34	57	98	7	3	1	63.0	76.3

Example Custom List report with a time step of one hour

## Time Step Grouping

The **Group by days** option breaks the time steps into 24-hour groups, placing the date at the start of the group. The option also includes the **column descriptions** option before the group, and the **totals**, **speed statistics** and **peaks** options after the group. If the **Group by days** option is not selected, these options appear at the beginning and end of the entire range of time steps.



1 Thursday, 2 August 2007

2 Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Mean	Vpp 85
0000	262	1	251	2	4	2	0	0	0	1	1	0	0	0	84.6	91.8
0100	118	1	108	1	6	2	0	0	0	0	0	0	0	0	84.0	93.6
0200	100	0	92	1	4	2	0	0	0	1	0	0	0	0	83.8	92.5
0300	167	1	157	0	7	2	0	0	0	0	0	0	0	0	85.3	95.2
0400	420	0	401	2	13	2	2	0	0	0	0	0	0	0	84.5	92.2
0500	1194	11	1118	5	46	11	1	1	0	0	1	0	0	0	83.8	90.4
0600	2775	13	2581	51	97	11	8	1	3	3	6	0	0	1	80.0	86.0
0700	3760	15	3581	36	91	13	4	3	4	5	7	1	0	0	72.7	80.3
0800	3376	19	3194	20	110	10	2	2	5	4	8	2	0	0	72.7	80.6
0900	2992	13	2752	36	127	15	6	7	8	7	21	0	0	0	73.9	81.7
1000	2440	10	2187	24	157	21	8	13	8	7	23	1	1	0	77.0	84.6
1100	2542	10	2279	26	156	20	8	7	5	6	20	3	2	0	76.0	83.2
1200	2756	8	2481	27	166	22	8	8	9	7	19	0	1	0	75.2	82.8
1300	2891	16	2601	33	148	26	13	6	8	10	25	2	2	1	75.6	83.2
1400	3016	11	2754	42	145	18	4	9	8	8	17	0	0	0	76.0	83.2
1500	3413	18	3147	43	140	15	3	4	9	6	24	3	0	1	74.7	81.7
1600	3918	20	3703	46	113	6	1	8	8	5	7	0	0	1	71.6	80.6
1700	4062	18	3911	22	90	4	2	1	2	4	6	0	0	2	72.7	80.6
1800	2709	11	2643	14	30	3	0	1	0	1	4	0	1	1	77.6	84.6
1900	1638	5	1602	6	20	1	0	1	0	1	2	0	0	0	80.8	86.8
2000	1212	11	1181	4	11	3	0	0	0	0	2	0	0	0	81.8	88.2
2100	1328	10	1298	2	9	3	1	0	0	0	4	0	0	1	81.0	86.8
2200	994	0	976	2	10	3	0	0	0	1	2	0	0	0	81.9	86.2
2300	676	3	653	3	14	2	0	0	0	1	0	0	0	0	81.3	87.5
07-19	37875	169	35213	369	1473	173	99	69	74	70	181	12	7	6	74.4	82.1
06-22	44828	208	41875	432	1610	191	68	71	77	74	195	12	7	8	75.4	83.2
06-00	46498	211	43994	437	1634	196	68	71	78	75	197	12	7	8	75.6	83.5
00-00	48759	225	45631	448	1714	217	71	72	78	77	199	12	7	8	76.0	83.9

5 Peak step 17:00 (4062) AM Peak step 07:00 (3760) PM Peak step 17:00 (4062)

VehicleS = 48759  
 Posted speed limit = 80 km/h, Exceeding = 15246 (31.27%), Mean Exceeding = 95.15 km/h  
 4 Maximum = 167.1 km/h, Minimum = 4.7 km/h, Mean = 76.0 km/h  
 85% Speed = 83.9 km/h, 95% Speed = 88.9 km/h, Median = 76.3 km/h  
 20 km/h Pace = 66 - 86, Number in Pace = 38143 (78.23%)  
 Variance = 72.71, Standard Deviation = 8.53 km/h

### Custom List Grouping and Totals

When data is grouped by days, the first time step starts at midnight. The **Roll days** option groups data in 24-hour periods aligned to the start of the report's Time Filter. This is useful for short 24 or 48-hour counts where daily totals are required, but the data may not start at midnight.

2 Tuesday, 1 May 2007 - Wednesday, 2 May 2007

3 Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Mean	Vpp 85
0900	1741	7	1603	17	76	11	5	5	6	2	5	1	0	3	70.7	77.0
1000	1471	3	1313	24	97	12	5	5	3	4	5	0	0	0	73.7	80.3
1100	1544	1	1396	16	91	11	7	7	4	4	6	1	0	0	73.0	79.6
1200	1560	2	1422	15	84	12	5	4	3	1	10	1	1	0	73.2	80.3
1300	1575	0	1425	11	99	13	7	9	5	1	5	0	0	0	72.9	79.6
1400	1709	0	1552	27	83	20	4	6	2	3	12	0	0	0	72.4	79.2
1500	1822	1	1680	29	82	12	3	2	4	3	5	0	0	1	70.3	78.5
1600	2018	6	1921	22	56	6	0	2	2	1	2	0	0	0	67.0	75.6
1700	1964	2	1892	22	32	5	3	2	4	2	0	0	0	0	63.2	73.8
1800	1560	3	1525	7	15	5	0	0	2	1	1	1	0	0	75.3	81.4
1900	1032	3	1008	7	9	2	0	1	0	1	1	0	0	0	79.2	84.6
2000	787	7	760	3	10	4	0	1	1	0	1	0	0	0	79.6	85.0
2100	804	3	789	1	6	2	0	1	0	0	2	0	0	0	79.6	85.0
2200	633	3	612	2	10	2	1	1	1	0	1	0	0	0	79.5	85.3
2300	349	1	337	0	7	2	0	0	0	0	2	0	0	0	82.0	88.9
0000	196	3	187	0	1	3	0	0	0	0	1	1	0	0	83.3	88.6
0100	96	0	90	0	2	3	0	0	0	1	0	0	0	0	82.1	87.1
0200	78	1	73	0	4	0	0	0	0	0	0	0	0	0	83.4	88.9
0300	133	0	121	0	6	3	1	0	0	0	2	0	0	0	82.8	87.8
0400	335	1	315	3	11	3	1	0	0	0	1	0	0	0	82.6	88.2
0500	738	6	680	3	35	9	1	0	2	1	1	0	0	0	81.5	86.4
0600	1559	5	1461	18	54	12	2	1	4	0	1	1	0	0	76.1	81.7
0700	1897	10	1811	20	38	5	2	0	0	3	7	1	0	0	69.1	76.7
0800	1836	8	1750	10	47	8	2	2	2	1	6	0	0	0	68.1	76.3
07-19	20697	43	19290	220	800	120	43	44	37	26	64	5	1	4	70.4	78.5
06-22	24879	61	23308	249	879	140	45	48	42	27	69	6	1	4	71.7	79.9
06-00	25861	65	24257	251	896	144	46	49	43	27	72	6	1	4	72.1	80.3
00-00	27437	76	25723	257	955	165	49	49	45	30	77	6	1	4	72.7	81.0

### Example Custom List report with roll days option enabled

The **Split directions** options inserts two rows for each time step, one for each direction. Note that the direction is based on **A>B** and **B>A**, not the compass direction. When combining multiple files with this option, ensure the compass directions match.

Date	Time	Dir	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Cls 11	Cls 12	Cls 13	Mean	Vpp
2/03/1998	0000	AB	3962	25	3646	31	239	6	4	1	0	6	3	0	0	1	56.6	64.1
2/03/1998	0000	BA	4467	24	4143	14	263	8	8	1	2	1	2	0	0	1	51.2	63.7
3/03/1998	0000	AB	3841	16	3547	26	237	9	1	1	0	3	0	0	0	1	57.1	65.2
3/03/1998	0000	BA	4238	11	3934	21	258	5	4	2	1	1	1	0	0	0	57.1	64.4
4/03/1998	0000	AB	4075	24	3755	42	234	6	4	3	1	1	3	0	0	2	57.1	64.8
4/03/1998	0000	BA	4488	19	4175	26	257	5	3	2	0	0	1	0	0	0	57.3	64.4
5/03/1998	0000	AB	4143	22	3805	41	255	7	6	2	3	0	0	0	0	2	57.2	65.2
5/03/1998	0000	BA	4512	24	4189	23	258	3	8	4	1	1	1	0	0	0	53.9	64.1
6/03/1998	0000	AB	4361	18	4031	47	247	8	2	1	4	1	1	0	0	1	56.6	64.4
6/03/1998	0000	BA	4541	13	4235	16	256	9	7	1	2	2	0	0	0	0	51.9	63.4
7/03/1998	0000	AB	2991	12	2819	23	128	3	1	1	2	0	0	0	0	2	58.3	66.6
7/03/1998	0000	BA	3246	6	3087	13	136	3	0	0	0	0	1	0	0	0	58.3	66.2
8/03/1998	0000	AB	2659	21	2591	14	31	1	1	0	0	0	0	0	0	0	58.0	65.9
8/03/1998	0000	BA	2741	12	2669	16	40	3	0	0	0	0	0	0	1	0	58.4	66.2
- 07-19	AB	<b>20675</b>	<b>103 18999</b>	<b>200</b>	<b>1274</b>	<b>39</b>	<b>17</b>	<b>9</b>	<b>10</b>	<b>9</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>56.9</b>	<b>64.8</b>	
- 07-19	BA	<b>23056</b>	<b>94 21409</b>	<b>121</b>	<b>1341</b>	<b>34</b>	<b>29</b>	<b>10</b>	<b>6</b>	<b>4</b>	<b>6</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>54.2</b>	<b>64.1</b>	
- 06-22	AB	<b>24107</b>	<b>117 22333</b>	<b>215</b>	<b>1339</b>	<b>40</b>	<b>18</b>	<b>9</b>	<b>10</b>	<b>10</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>57.0</b>	<b>64.8</b>	
- 06-22	BA	<b>26723</b>	<b>108 24983</b>	<b>128</b>	<b>1409</b>	<b>36</b>	<b>30</b>	<b>10</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>54.9</b>	<b>64.4</b>	
- 06-00	AB	<b>25110</b>	<b>117 23318</b>	<b>218</b>	<b>1354</b>	<b>40</b>	<b>18</b>	<b>9</b>	<b>10</b>	<b>10</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>57.1</b>	<b>64.8</b>	
- 06-00	BA	<b>27665</b>	<b>109 25901</b>	<b>129</b>	<b>1431</b>	<b>36</b>	<b>30</b>	<b>10</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>55.0</b>	<b>64.4</b>	
- 00-00	AB	<b>26032</b>	<b>138 24194</b>	<b>224</b>	<b>1371</b>	<b>40</b>	<b>19</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>57.2</b>	<b>65.2</b>	
- 00-00	BA	<b>28233</b>	<b>109 26432</b>	<b>129</b>	<b>1468</b>	<b>36</b>	<b>30</b>	<b>10</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>55.1</b>	<b>64.4</b>	

Custom List with 24-hour time step and Split Directions option

## Partial Totals

The **Include totals** formatting option by default includes a 24-hour total (00:00-00:00), as well as the common 12-hour (07:00-19:00), 16-hour (06:00-22:00) and 18-hour (06:00-00:00) partial totals. These can be changed or removed on the **Advanced** page of the Custom List Properties.

Editing Custom List Partial Totals

Double-click any of the Partial Totals to edit the time range. To disable a Partial Total set the start and end hours to the same value, except for 00:00-00:00 which is the 24-hour total. A disabled Partial Total will display **Off** and will not be displayed in the totals block.

## Virtual Day/Week

The **Append a Virtual Day** or **Week** options include a virtualised summary of the data at the end of the Custom List report.

A virtual day represents a "typical" 24 hour period, using one hour per row. A virtual week represents a "typical" week, with a row per day. Data is accumulated for all the matching times, and then recalculated. The summaries are not just an average of previously calculated rows, totals or statistics.

^ Virtual Day (21)																		
Time	-/n	Total	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Vpp	MeanX
			1	2	3	4	5	6	7	8	9	10	11	12	13	85	80	
0000	21	349	1	337	1	5	2	0	0	0	1	1	0	0	0	91.1	87.8	
0100	21	189	0	181	1	4	1	0	0	0	1	1	0	0	0	92.2	88.4	
0200	21	143	0	135	1	6	1	0	0	0	0	0	0	0	0	94.0	89.5	
0300	21	179	0	170	1	4	2	0	0	0	0	0	0	0	0	93.2	89.0	
0400	21	375	1	359	2	10	1	1	0	0	0	0	0	0	0	92.5	88.0	
0500	21	979	7	928	5	27	7	2	1	1	0	1	0	0	0	91.4	87.4	
0600	21	2132	10	1992	30	77	10	3	1	3	1	4	0	0	0	86.8	85.5	
0700	21	2909	12	2762	28	78	10	4	2	3	2	6	1	0	0	82.8	84.5	
0800	21	2798	14	2650	23	77	12	4	2	5	2	8	1	0	0	82.4	84.8	
0900	21	2422	9	2247	26	99	13	4	4	5	4	11	1	0	0	83.5	84.9	
1000	21	2312	6	2110	29	119	17	5	5	5	3	12	1	0	0	84.2	85.0	
1100	21	2550	8	2338	30	122	19	5	5	7	4	13	1	0	0	83.5	84.8	
1200	21	2571	8	2362	30	121	17	4	4	5	4	13	1	0	0	83.9	84.9	
1300	21	2514	10	2313	33	108	17	5	4	6	4	12	1	0	1	84.2	84.9	
1400	21	2677	9	2470	36	114	15	4	5	6	4	11	1	0	1	83.5	84.9	
1500	21	2936	12	2748	35	102	13	2	3	5	4	10	1	0	1	82.8	84.8	
1600	21	3348	16	3180	32	91	8	2	4	5	3	7	0	0	1	81.4	84.7	
1700	21	3517	14	3397	25	65	4	1	2	2	1	4	0	0	0	81.4	84.5	
1800	21	2392	9	2334	12	28	4	0	1	1	1	2	0	0	0	85.3	85.2	
1900	21	1478	4	1446	7	15	2	0	1	0	0	3	0	0	0	87.5	85.9	
2000	21	1114	4	1088	4	12	3	0	0	0	0	2	0	0	0	88.2	86.3	
2100	21	1130	4	1108	3	10	2	0	0	0	0	2	0	0	0	87.8	86.2	
2200	21	941	3	920	2	12	2	0	0	0	0	1	0	0	0	88.2	86.4	
2300	21	590	1	575	1	9	2	0	0	0	1	1	0	0	0	89.3	87.0	
<b>07-19</b>	<b>21</b>	<b>32945</b>	<b>127</b>	<b>30910</b>	<b>339</b>	<b>1122</b>	<b>149</b>	<b>39</b>	<b>42</b>	<b>55</b>	<b>37</b>	<b>108</b>	<b>9</b>	<b>2</b>	<b>5</b>	<b>83.2</b>	<b>84.8</b>	
<b>06-22</b>	<b>21</b>	<b>38799</b>	<b>149</b>	<b>36544</b>	<b>383</b>	<b>1235</b>	<b>167</b>	<b>43</b>	<b>44</b>	<b>59</b>	<b>39</b>	<b>119</b>	<b>9</b>	<b>2</b>	<b>6</b>	<b>84.2</b>	<b>85.1</b>	
<b>06-00</b>	<b>21</b>	<b>40330</b>	<b>154</b>	<b>38038</b>	<b>387</b>	<b>1255</b>	<b>171</b>	<b>43</b>	<b>45</b>	<b>59</b>	<b>40</b>	<b>122</b>	<b>9</b>	<b>2</b>	<b>6</b>	<b>84.2</b>	<b>85.2</b>	
<b>00-00</b>	<b>21</b>	<b>42544</b>	<b>164</b>	<b>40148</b>	<b>397</b>	<b>1311</b>	<b>185</b>	<b>47</b>	<b>46</b>	<b>61</b>	<b>43</b>	<b>125</b>	<b>9</b>	<b>2</b>	<b>6</b>	<b>84.6</b>	<b>85.5</b>	

^ Virtual Week (3)																		
Time	-/n	Total	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Vpp	MeanX
			1	2	3	4	5	6	7	8	9	10	11	12	13	85	80	
Mon	3	44450	156	41584	412	1639	244	56	56	73	56	158	11	2	2	84.2	85.2	
Tue	3	46757	177	43768	415	1699	250	60	55	80	53	179	12	3	7	84.2	85.2	
Wed	3	47722	175	44807	432	1610	243	68	59	80	56	170	13	1	6	83.9	85.3	
Thu	3	47779	181	44830	423	1676	232	59	59	77	60	161	11	4	7	83.9	85.2	
Fri	3	48460	204	45368	488	1728	238	65	58	83	59	145	13	4	8	84.2	85.3	
Sat	3	34674	138	33462	346	532	65	14	25	26	13	42	5	1	5	86.8	86.0	
Sun	3	27964	118	27215	260	292	23	5	11	9	4	22	1	0	4	87.1	86.1	
--	3	<b>297806</b>	<b>1148</b>	<b>281035</b>	<b>2776</b>	<b>9176</b>	<b>1296</b>	<b>328</b>	<b>322</b>	<b>427</b>	<b>301</b>	<b>877</b>	<b>66</b>	<b>15</b>	<b>39</b>	<b>84.6</b>	<b>85.5</b>	

### Custom List Virtual Day and Virtual Week

Careful attention should be paid to the start and finish time alignment in the Profile when including virtual summaries. When using the virtual day, the Profile duration should be a whole number of days. When using the virtual week, the Profile duration should be a whole number of weeks. This ensures that averages are not skewed by including part of an hour or day that was only partially recorded. The whole number of days and weeks can be unaligned (not aligned to midnight). The Profile's time **Auto-Wrap** options assist in selecting an appropriate time range.

If the Profile is not appropriately set, the title will indicate partial data, such as **\*\* Virtual Day (Partial days = 7.06)** or **\*\* Virtual Week (Partial weeks = 1.01)**. In these cases, total rows (if selected) will not be shown.

## Grand Total

The **Append Grand Total** option includes an aggregate row for the entire range of data. Like the Virtual Day and Week, these values are calculated from all the underlying data, not from previously calculated rows, totals or statistics.

^ Grand Total																		
Time	Total	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Cls	Vpp	MeanX
		1	2	3	4	5	6	7	8	9	10	11	12	13	85	80		
--	893418	3445	843104	8328	27527	3888	983	967	1282	904	2631	197	45	117	84.6	85.5		

### Custom List Grand Total

# Individual Vehicle Steps

The **Emit every vehicle** option creates a row for every vehicle. The special **Vehicle parameter** group of fields contain fields similar to those found in the **Individual Vehicles** report.

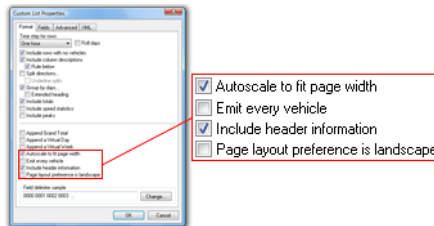
	Date-Time	Speed	Dir	Vbase	Hdtry	Gap	Ax	Gp	Vehicle	Pic
1993-09-20	13:01:25	76.5	AB	3.1	2.4	2.3	2	2	o	o
1993-09-20	13:01:27	82.3	AB	2.9	2.2	2.1	2	2	o	o
1993-09-20	13:01:47	83.8	AB	9.1	20.5	20.4	3	3	o	o
1993-09-20	13:01:59	83.8	AB	14.3	11.6	11.2	6	3	o	oo
1993-09-20	13:02:33	80.2	AB	3.0	34.2	33.6	2	2	o	o
1993-09-20	13:02:58	85.2	AB	2.5	24.8	24.6	2	2	o	o
1993-09-20	13:03:26	77.7	AB	7.4	28.2	28.1	3	2	o	oo
1993-09-20	13:03:33	76.3	AB	5.8	7.1	6.7	2	2	o	o
1993-09-20	13:03:37	76.3	AB	19.7	4.0	3.8	8	4	o	oo
1993-09-20	13:03:51	79.9	AB	1.9	14.1	13.2	2	1	oo	oo

## Custom List report with Individual Vehicles

Using the **Suppress steps** Time Step option, all other Custom List fields will be ignored, producing a report with just individual vehicles. If a Time Step is selected, they will be interspersed with the individual vehicles.

# Page Layout

If the width of the selected fields in a Custom List report exceed the width of the page, the **Autoscale to fit page width** will automatically reduce the size of the report's font. If the font becomes too small to read, a landscape page layout may be preferable.

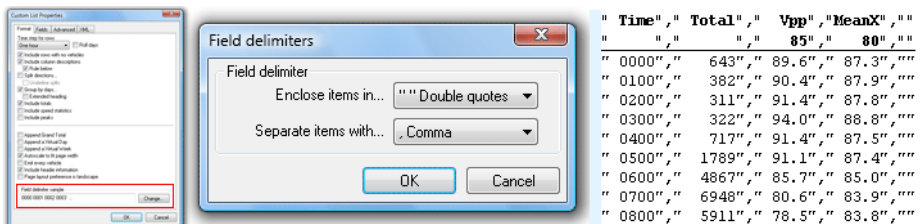


Custom List page layout options

The **Include header information** option includes the standard MetroCount report header at the start of the Custom List report, as well as a column legend for the selected fields.

# Field Delimiters

Fields or columns in a Custom List report are separated by a space character by default. To change this to another character, such as a comma for exporting to a spreadsheet, click the **Change** button at the bottom of the **Format** page. Each field can optionally be enclosed in another character, such as a double quote.



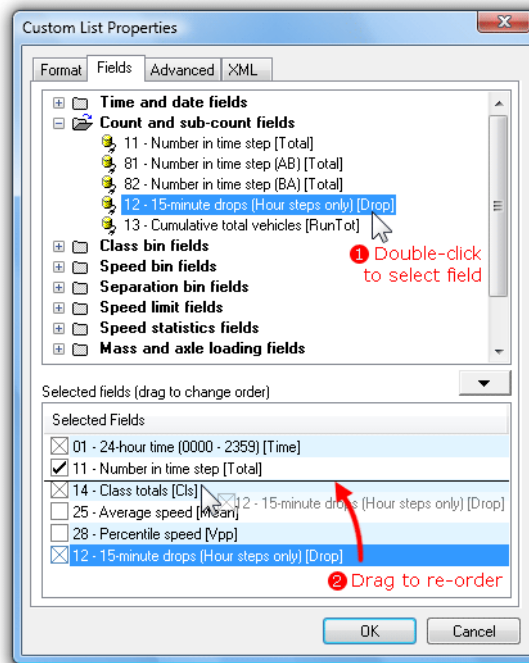
Custom List Field Delimiters



# Custom List Fields

## Selecting Fields

Fields in a Custom List report form the columns of the report. The **Fields** page of the Custom List Properties contains the **Fields Tree** at the top with the list of available fields, and the **Selected Fields** list at the bottom.



### Selecting Custom List Fields

Fields can be added to the Selected Fields list by double-clicking them, or dragging them from the Fields Tree. The order of fields can be changed by dragging them around in the Selected Fields list. To remove a selected field, simply double-click it.

Note that the text in square brackets at the end of each field name is the column heading used for that field.

## Time and Date Fields

The Time and Date Fields display the *beginning* of each time step. There are a variety of standard date formats, most of which are self-explanatory.

**Time and date fields**

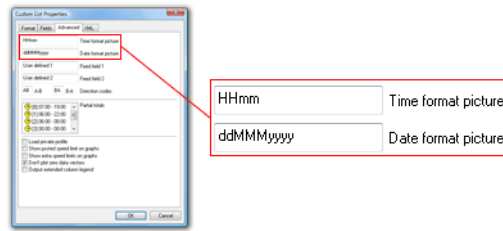
	1	2	3	4	5	6	7	8
	Time	YYYYMMDDHHMM	Date-Time	Date-Time	Time	Date	(hh:mm tt) (ddMMMyyyy)	Date
01 - 24-hour time (0000 - 2359) [Time] 1	0000	200707190000	2007-07-19 00:00:00	2007-07-19T00:00:00	00:00	19/07/2007	12:00 AM	19Jul2007
02 - Packed date and time [YYYYMMDDHHMM] 2	0100	200707190100	2007-07-19 01:00:00	2007-07-19T01:00:00	01:00	19/07/2007	01:00 AM	19Jul2007
03 - Full date and time [Date-Time] 3	0200	200707190200	2007-07-19 02:00:00	2007-07-19T02:00:00	02:00	19/07/2007	02:00 AM	19Jul2007
70 - ISO8601 date and time (XML) [Date-Time] 4	0300	200707190300	2007-07-19 03:00:00	2007-07-19T03:00:00	03:00	19/07/2007	03:00 AM	19Jul2007
04 - Locale time [Time] 5	0400	200707190400	2007-07-19 04:00:00	2007-07-19T04:00:00	04:00	19/07/2007	04:00 AM	19Jul2007
05 - Locale short date [Date] 6	0500	200707190500	2007-07-19 05:00:00	2007-07-19T05:00:00	05:00	19/07/2007	05:00 AM	19Jul2007
06 - User defined time picture [Time] 7	0600	200707190600	2007-07-19 06:00:00	2007-07-19T06:00:00	06:00	19/07/2007	06:00 AM	19Jul2007
07 - User defined date picture [Date] 8								

## Custom List Time and Date Fields

The **Locale** options use the format provided by the operating system's regional settings.

The **ISO8601** format is recommended when exporting data, to provide compatibility with programs such as Excel.

The **User defined** date and time pictures can be edited on the **Advanced** page of the Custom List Properties, using the standard Windows time and date notation.



Custom List user defined date and time pictures

## Count and Sub-count Fields

The Count and Sub-count fields provide the total number of vehicles in the current time step.

Count and sub-count fields		Time	Total	Total	Total	Drop	Drop	Drop	Drop	RunTot
				AB	BA	--00	--15	--30	--45	
11 - Number in time step [Total]		0000	643	302	341	211	171	146	115	643
81 - Number in time step [AB] [Total]		0100	382	162	220	90	97	89	106	1025
82 - Number in time step [BA] [Total]		0200	311	116	195	95	84	77	55	1336
12 - 15-minute drops (Hour steps only) [Drop]		0300	322	158	164	60	72	84	106	1658
13 - Cumulative total vehicles [RunTot]										

Custom List Count Fields

If the directional totals **AB** and **BA** are used with multiple datasets tagged, each dataset should have the same direction code.

When using an hourly time step, the **15-minute drops** field inserts a column for the total vehicles in each 15-minute period.

The **Cumulative total vehicles** field displays the cumulative number of vehicles since the beginning of the report.

## Class Bin Fields

The **Class totals** and **percentages** fields include a column of total vehicles (or percentage) for each class included in the report's Local Profile.

Class bin fields		Time	Total	Cls	Cls	Cls	C1%	C1%	C1%
				1	2	3	1	2	3
14 - Class totals [Cls]		0000	643	623	12	8	96.9	1.9	1.2
15 - Class percentages [C1%]		0100	382	368	10	4	96.3	2.6	1.0
		0200	311	302	7	2	97.1	2.3	0.6
		0300	322	305	15	2	94.7	4.7	0.6

Custom List Class Bin Fields

## Speed Bin Fields

The **Speed bin totals** and **percentages** fields include a column of total vehicles (or percentage) for each *enabled* speed bin in the report's Local Profile. The lower and upper limits of each column are displayed in the column's heading.

Note that some vehicles may be hidden if some speed bins are disabled.

- Speed bin fields
  - 16 - Speed bin totals [Vbin]
  - 17 - Speed bin percentages [Vb%]
  - 37 - Speed rating [vRate]

Time	Total	Vbin	Vbin	Vbin	Vbin	Vb%	Vb%	Vb%	Vb%	vRate
		0	60	80	100	0	60	80	100	
		60	80	100	200	60	80	100	200	
0000	643	1	263	355	24	0.2	40.9	55.2	3.7	403.0
0100	382	2	157	204	19	0.5	41.1	53.4	5.0	242.0
0200	311	1	113	185	12	0.3	36.3	59.5	3.9	209.0
0300	322	0	102	205	15	0.0	31.7	63.7	4.7	235.0

### Custom List Speed Bin Fields

The **Speed rating** field is the sum of products of each speed bin total multiplied by the bin's multiplier. These are defined in the report's Local Profile.

## Separation Bin Fields

The **Separation bin totals** and **percentages** fields include a column of total vehicles (or percentage) for each separation bin defined in the report's Local Profile. The lower and upper limits of each column are displayed in the column's heading.

Time	Total	Sep	Sep	Sep	Sep	Sep	Sep	Sep	Sep	Sep	Sep	sRate
		0.00	0.50	1.00	2.00	4.00	0.00	0.50	1.00	2.00	4.00	
		0.50	1.00	2.00	4.00	1000.00	0.50	1.00	2.00	4.00	1000.00	
0700	6945	8	954	3757	1647	579	0.1	13.7	54.1	23.7	8.3	12055.0
0800	5909	3	385	2600	2405	514	0.1	6.5	44.0	40.7	8.7	8772.0
0900	6072	4	586	3080	1673	729	0.1	9.7	50.7	27.6	12.0	9607.0
1000	5134	5	579	2246	1391	913	0.1	11.3	43.7	27.1	17.8	7640.0

### Custom List Separation Bin Fields

The **Separation rating** field is the sum of products of each separation bin total multiplied by the bin's multiplier. These are defined in the report's Local Profile.

## Speed Limit Fields

The Speed Limit fields display the total number of vehicles (or percentage) exceeding the selected speed limit. The Posted Speed Limit, and up to 10 other limits are defined in the report's Local Profile.


The actual limit, and the limit's name if one was defined, are displayed in the column heading.













Time	Total	>PSL	>PSL%	>SL1	>SL1%	>SL2	>SL2%
		80	80	90	90	100	100
		PSL+10	PSL+10	PSL+20	PSL+20		
0000	643	379	58.9	92	14.3	24	3.7
0100	382	223	58.4	63	16.5	19	5.0
0200	311	197	63.3	57	18.3	12	3.9
0300	322	220	68.3	72	22.4	15	4.7

### Custom List Speed Limit Fields

## Speed Statistics Fields

The Speed Statistics fields provide a variety of standard statistical measures for the speed of vehicles in the current time step.

 **Speed statistics fields**

-  22 - Number in speed pace [nPace]
-  23 - Speed at start of pace [vPace]
-  24 - Percent in pace [Pace%]
-  25 - Average speed [Mean]
-  26 - Minimum speed [Vmin]
-  27 - Maximum speed [Vmax]
-  28 - Percentile speed [Vpp]
-  29 - Percentile speed 2 [Vpp]
-  30 - 50th percentile speed (Median) [V50]
-  44 - Standard Deviation [SD]
-  45 - Variance [Var]
-  69 - Mean Exceeding [MeanX]

Time	Total	nPace	vPace	Pace%	Mean	Vmin	Vmax	Vpp	Vpp	V50	SD	Var	MeanX
		20	20	20				85	95				80
0000	643	542	72.7	84.3	82.6	59.3	145.6	89.6	96.5	81.0	8.9	79.7	87.3
0100	382	313	70.9	81.9	82.7	52.8	123.1	90.4	99.0	81.0	9.0	81.1	87.9
0200	311	252	73.4	81.0	83.3	56.6	134.6	91.4	98.3	81.7	9.0	80.1	87.8
0300	322	256	73.1	79.5	84.9	65.1	115.0	94.0	99.7	83.5	8.4	70.3	88.8
0400	717	603	72.7	84.1	84.2	56.9	121.1	91.4	98.6	82.8	8.0	64.2	87.5
0500	1789	1520	72.7	85.0	83.8	59.7	132.4	91.1	97.2	82.8	7.5	56.5	87.4
0600	4867	4177	69.5	85.8	79.2	4.2	116.8	85.7	90.0	79.2	7.0	49.3	85.0
0700	6945	4998	62.3	72.0	70.8	21.1	109.9	80.6	85.0	72.0	10.5	109.5	83.9
0800	5909	2634	63.0	44.6	52.8	0.0	105.2	78.5	82.8	62.3	24.5	597.8	83.8
0900	6072	3382	63.0	55.7	66.4	2.4	115.8	79.9	84.6	68.0	13.4	179.3	84.1
1000	5134	4064	63.4	79.2	74.0	49.4	112.5	81.7	86.8	74.2	8.0	64.4	84.4

### Custom List Speed Statistics Fields

The width of the speed pace, the percentile speeds and the posted speed limit for **Mean Exceeding** are all set in the report's Local Profile. The actual values are displayed in the column headings.

# Mass and Axle Loading Fields

The number of single, double and triple axle groups are based on the definition of a group (two or more axles less than a certain distance apart) in the selected Classification Scheme.

The ESA and estimated mass fields use the Estimated Mass table in the report's Local Profile.

Mass and axle loading fields	Time	Total	nAx1	nAx2	nAx3	ESA	fMass	gMass	Energy
31 - Number of isolated single axles [nAx1]	1300	239	458	44	12	102.9	404.0	937.1	232.94
32 - Number of double axle groups [nAx2]	1400	255	482	53	10	96.8	387.0	901.0	209.67
33 - Number of triple (or more) axle groups [nAx3]	1500	332	642	40	9	74.6	279.0	640.6	147.97
34 - Number of equivalent standard axles [ESA]	1600	309	593	51	14	112.5	474.0	1033.1	282.22
35 - Estimated freight mass [fMass]	1700	297	579	41	16	95.6	417.0	865.9	220.43
36 - Estimated gross mass [gMass]	1800	179	337	40	20	98.9	432.0	905.7	234.99
43 - Energy [Energy]	1900	97	172	30	19	82.3	379.0	774.8	195.39

## Custom List Mass Fields

# Formatting Fields

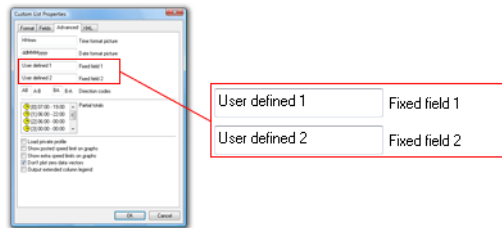
Fields or columns in the Custom List are normally separated by a space character on the right-hand side of the field. This character can be changed in the Custom List's Formatting options.

The **Separate columns with a vertical rule** field can be used to further delineate fields. Placing **Remove separator from next field** before a field will join the next two fields together.

Formatting fields	Time	Total	Fix1	Fix2	Fix1	Fix2
39 - Separate columns with a vertical rule [1]	1300	239	User defined 1	User defined 2	User defined 1	User defined 2
40 - Remove separator from next field [2]	1400	255	User defined 1	User defined 2	User defined 1	User defined 2
08 - User defined fixed text [Fix1]	1500	332	User defined 1	User defined 2	User defined 1	User defined 2
09 - User defined fixed text [Fix2]						

## Custom List Formatting Fields

The user defined text fields can be set in the **Advanced** page of the Custom List Properties.



## Custom List user defined fields

# Other Fields

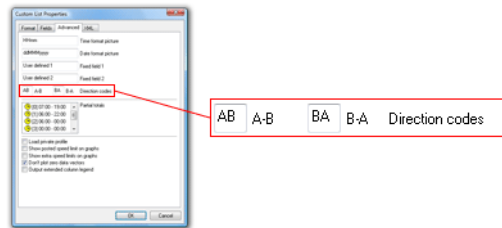
The **Average of sensor correlation** field is the average ratio of "matching" A and B hits for vehicles in the current time step. Perfect data will have a value of one.

The **Normalise divisor** field can be used in the Virtual Day and Week to show the number of times a particular hour of the day (or day of the week) contributed to the virtualised totals and statistics.

Other fields		* Virtual Day (7)				
		Time	-/n	Dir	Rho	Total
38	Average of sensor correlation [Rho]	0000	7	AB	1.000	360
46	Normalise divisor [-/n]	0000	7	BA	1.000	472
10	Direction code [Dir]	0100	7	AB	1.000	202
		0100	7	BA	1.000	313
		0200	7	AB	1.000	149
		0200	7	BA	1.000	249

## Custom List Other fields

The **Direction code** field can be used with the **Split directions** formatting option where each time step is split into two rows (A>B and B>A). The text shown for each direction can be overridden in the Advanced page of the Custom List properties.



## Custom List direction codes

# Vehicle Parameter Fields

The **Vehicle Parameter** fields are used with the **Emit every vehicle** formatting option. Refer to the Individual Vehicle report for a definition of each field.

Vehicle parameter fields	Date-Time	DS	Index	Ht	Speed	Wbase	Hdwy	Gap	Ax	Gp	Rho	Nm	Cl	Vehicle	Pic
47 - Dataset [DS]	2007-07-12 14:12:48	2	10747	12	78.9	15.1	9.7	9.6	6	3	1.00	20	10	o	ooo
48 - Vehicle index [Index]	2007-07-12 14:12:49	4	9268	4	58.4	6.3	2.1	2.0	2	2	1.00	20	4	o	o
49 - Total hits in vehicle [Ht]	2007-07-12 14:12:50	5	5928	4	78.9	2.4	1.9	1.8	2	2	1.00	20	2	o	o
50 - Vehicle speed [Speed]	2007-07-12 14:12:51	3	7292	8	83.2	10.2	14.8	14.7	4	3	1.00	20	8	o	oo
51 - Vehicle wheelbase [Wbase]	2007-07-12 14:12:52	2	10759	4	73.0	2.6	3.5	2.8	2	2	1.00	20	2	o	o
52 - Vehicle headway [Hdwy]	2007-07-12 14:12:52	3	7300	4	82.0	2.9	1.3	0.9	2	2	1.00	20	2	o	o
53 - Vehicle gap [Gap]	2007-07-12 14:12:52	4	9272	4	59.2	2.9	3.8	3.4	2	2	1.00	20	2	o	o
54 - Vehicle axles [Ax]	2007-07-12 14:12:53	5	5932	4	77.7	2.8	3.0	2.9	2	2	1.00	20	2	o	o
55 - Vehicle axle groups [Gp]	2007-07-12 14:12:53	2	10763	4	76.2	2.8	1.0	0.9	2	2	1.00	20	2	o	o
56 - Axle correlation [Rho]	2007-07-12 14:12:53	3	7304	4	85.0	2.9	0.8	0.6	2	2	1.00	20	2	o	o
57 - Debug parameter [Nm]	2007-07-12 14:12:54	4	9276	12	57.7	14.9	1.8	1.6	6	3	1.00	20	10	o	ooo
58 - Vehicle picture [Vehicle Pic]	2007-07-12 14:12:55	2	10767	4	71.6	2.6	2.1	2.0	2	2	1.00	20	2	o	o
59 - Vehicle class [Cl]	2007-07-12 14:12:56	2	10771	4	78.4	2.9	1.2	1.1	2	2	1.00	20	2	o	o
	2007-07-12 14:12:56	3	7308	4	79.3	2.5	3.3	3.2	2	2	1.00	20	2	o	o

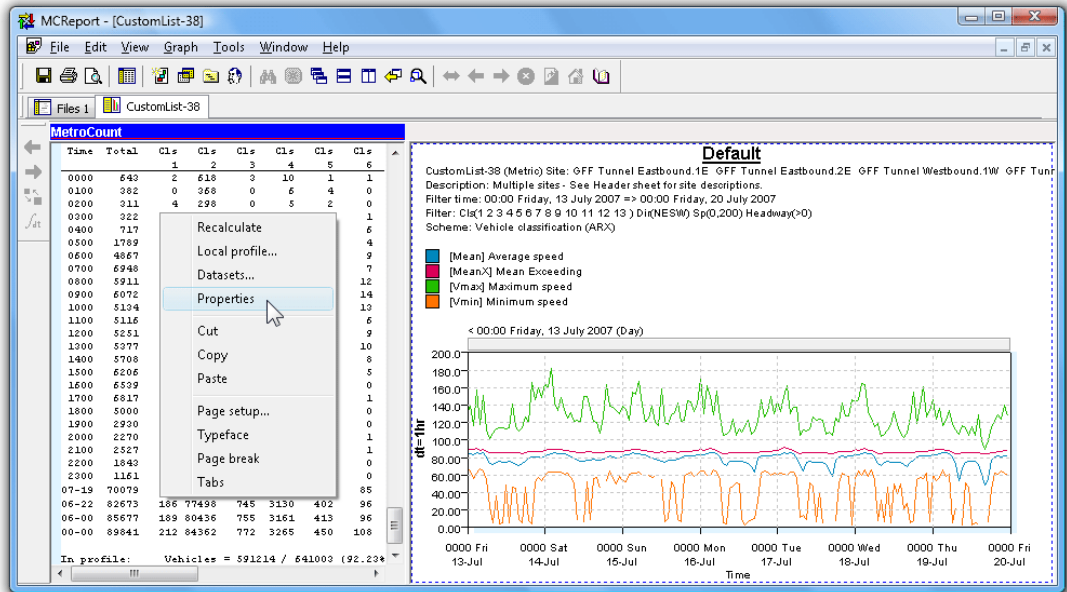
## Custom List Vehicle Parameter Fields

# Custom List Chart

## Split Window

The Custom List report is a dual-pane split report, with a time-based chart on the right where fields included in the report can be optionally plotted. The entire time range of data is included in the chart, with the time step as the integration time.

Like dual-pane graphical reports, the left pane is the primary pane, with access to the report's Local Profile, datasets and Custom List Properties via the right-click menu.



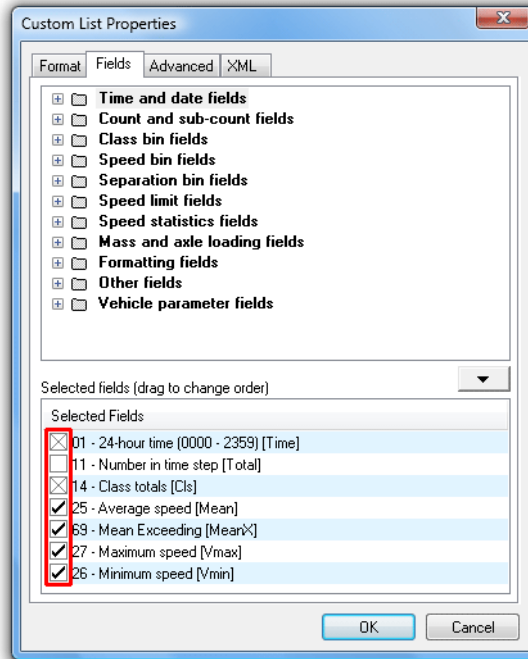
## Custom List Chart

To print or save the Custom List chart it must first be activated by clicking anywhere within its pane. The blue MetroCount bar indicates the active pane, which print and save operations relate to. The usual graph rendering and scaling properties can be changed via the **Graph** menu in MCRReport's main menu.



# Selecting Fields

The check box next to each selected field in the Custom List report's Properties is used to include the field in the Custom List chart. Fields with a cross in the check box cannot be plotted.



## Selecting fields to plot

All selected fields are plotted on one vertical axis, so for best results, only select fields with a similar range in values.

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