MetroCount®
Traffic Data Specialists

What's New in MTE v3.2

July 2009

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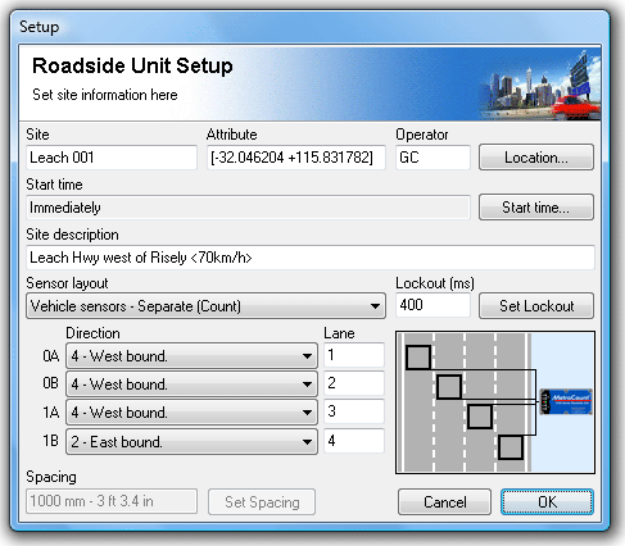
MetroCount 5805 Loop Counter

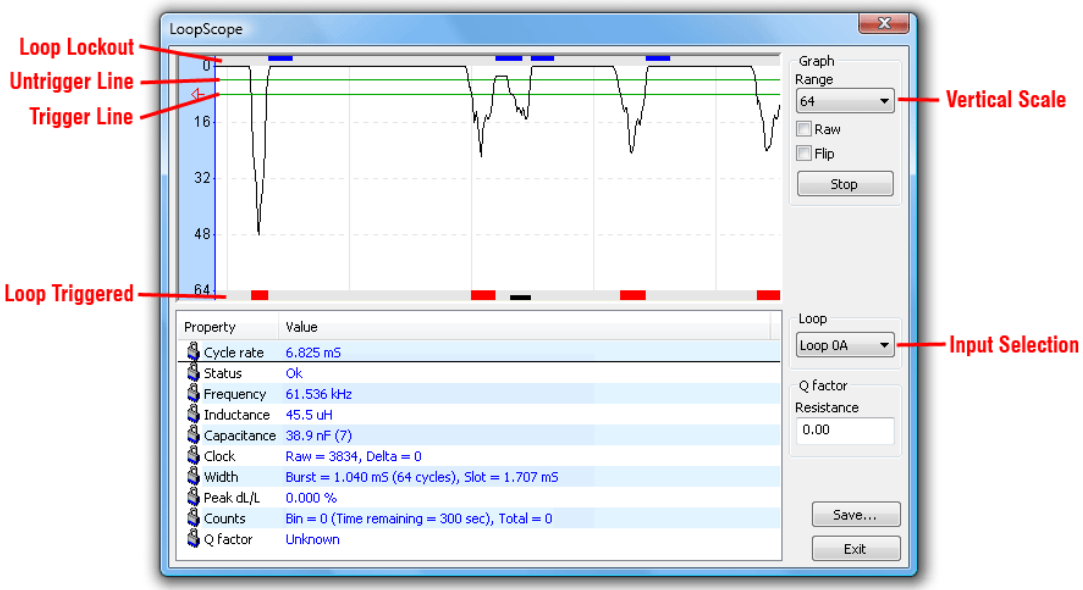
The MetroCount 5805 is MetroCount's new binned vehicle counter, with four inductive loop inputs. MTE v3.2 includes a comprehensive range of setup, diagnostic and analysis tools for the MC5805.

The MC5805 Roadside Unit uses the same intuitive setup interface as other MetroCount RSUs, now with up to four direction and lane assignments.



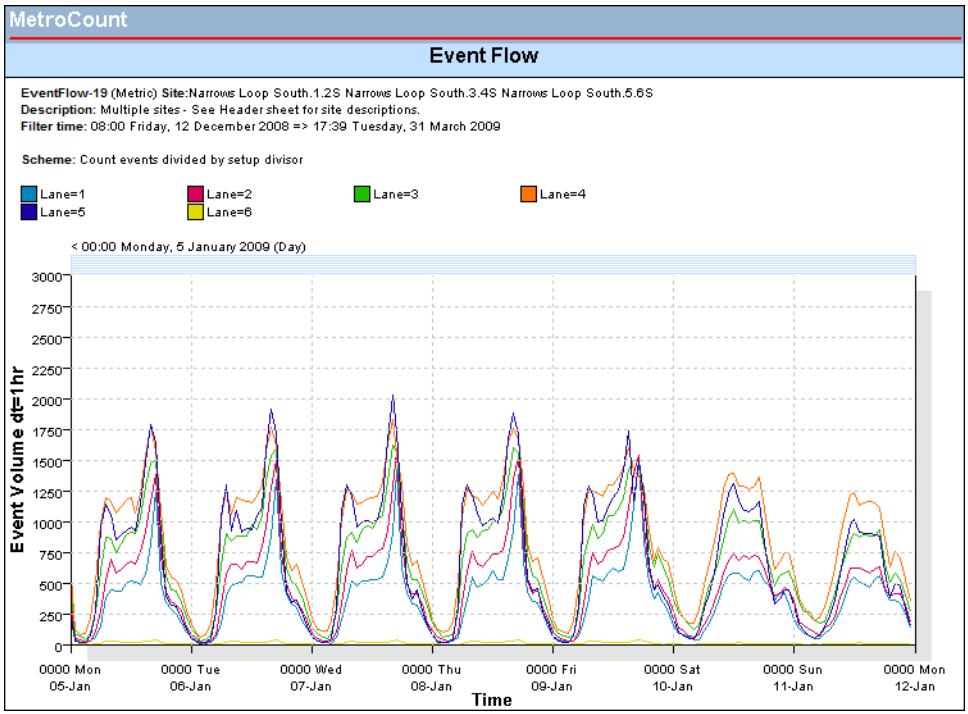
MC5805 Setup

MCSetup's unique LoopScope provides crucial feedback about the properties and condition of a loop. The LoopScope also has a real-time rolling view of loop deviation caused by passing vehicles.



LoopScope real-time view

Binned MC5805 data can be analysed using MCReport's Event Count reports, which have been extended to include multi-lane support, and automatic divisors based on data type.



Event Flow with multiple lanes

For more information about the MC5805, please see http://tech-metrocount.com/mc5805

MetroCount 5720 Piezo Classifier for Cycles

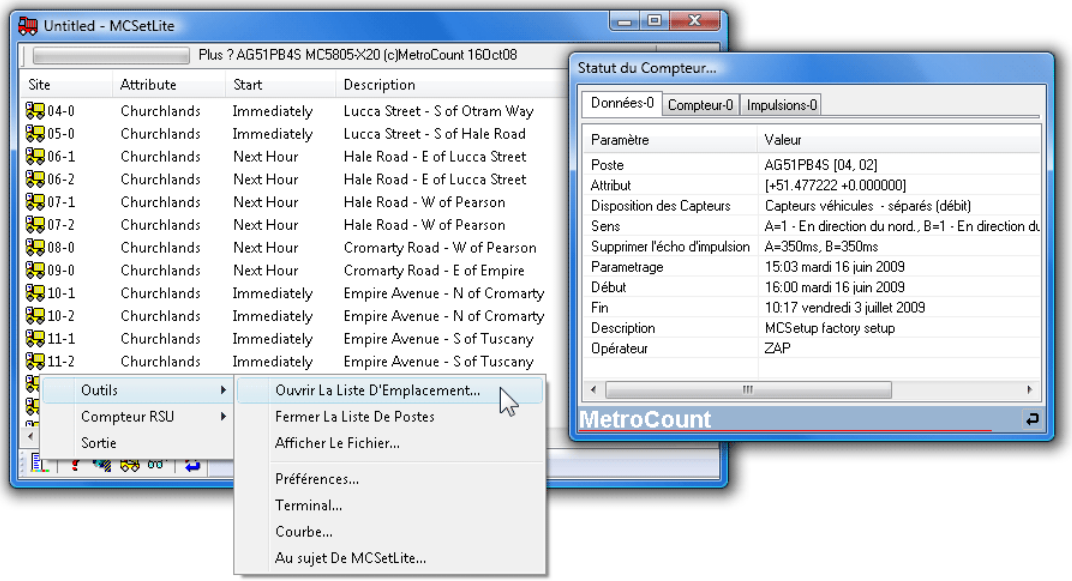
The MetroCount 5720 is MetroCount's latest piezo-based vehicle classifier, optimised for use on dedicated cycle paths. The MC5720 provides direction and speed of cycles from a pair of Measurement Specialties BL sensors, flush-mounted into the pavement.

MCReport automatically applies a modified algorithm to MC5720 data, enhancing partitioning and cluster separation.

For more information about the MC5720, please see http://tech-metrocount.com/mc5720

MCSetLite PC

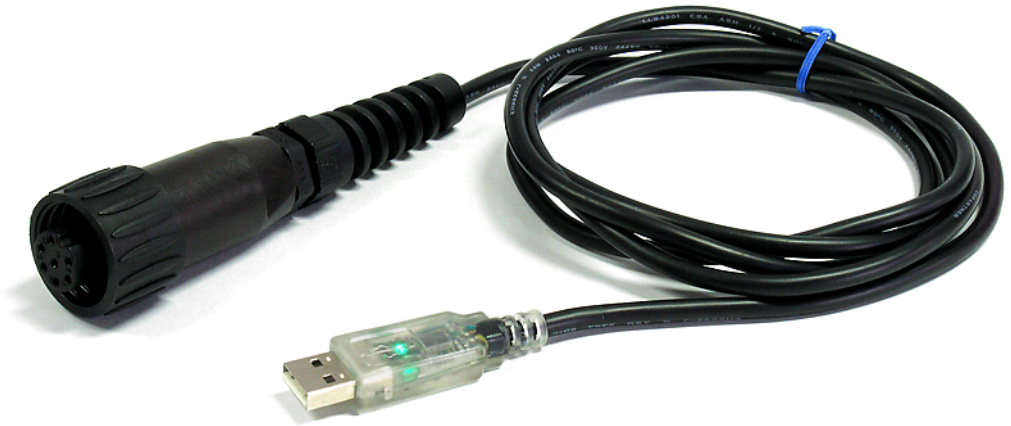
A version of MCSetLite is now available for the PC, providing a fully translated MetroCount setup application for laptops, netbooks and desktop PCs. **MCSetLite PC** is installed as part of the main MTE installation.



MCSetLite PC - available in multiple languages

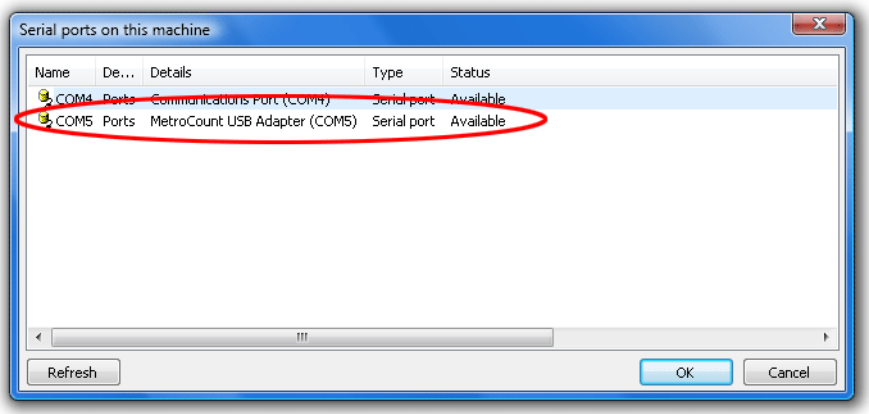
MetroCount USB Adapter

The MetroCount USB Adapter provides a direct USB connection to MetroCount's RSUs, without the need for a separate conversion cable.



MetroCount USB Adapter

MCSetup automatically finds all serial ports on a PC, making selection of the correct serial port a simple process.

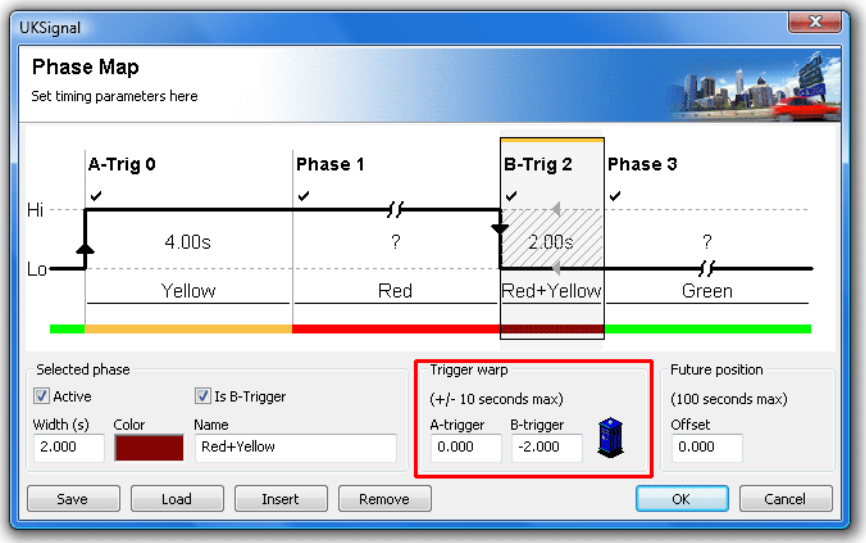


Identifying a MetroCount USB Adapter

Enhanced Phase Map for Timing Analysis

MCReport's **Phase Map** (used for Timing Analysis reports) now includes the option to move the actual trigger events logged by a MetroCount 5712 backwards or forwards in time. This allows the addition of fixed-length phases prior to a trigger event.

Take the common example of a MC5712 connected to the Green light of a traffic signal. The B-trigger, signalling the beginning of the Green phase, can now be moved back by two seconds to cater for intersections with a Red + Yellow phase prior to the Green, as used in the UK.



Adding phases prior to trigger events

The name of the Phase Map used is now included in the report header as the scheme used for the timing channel data.

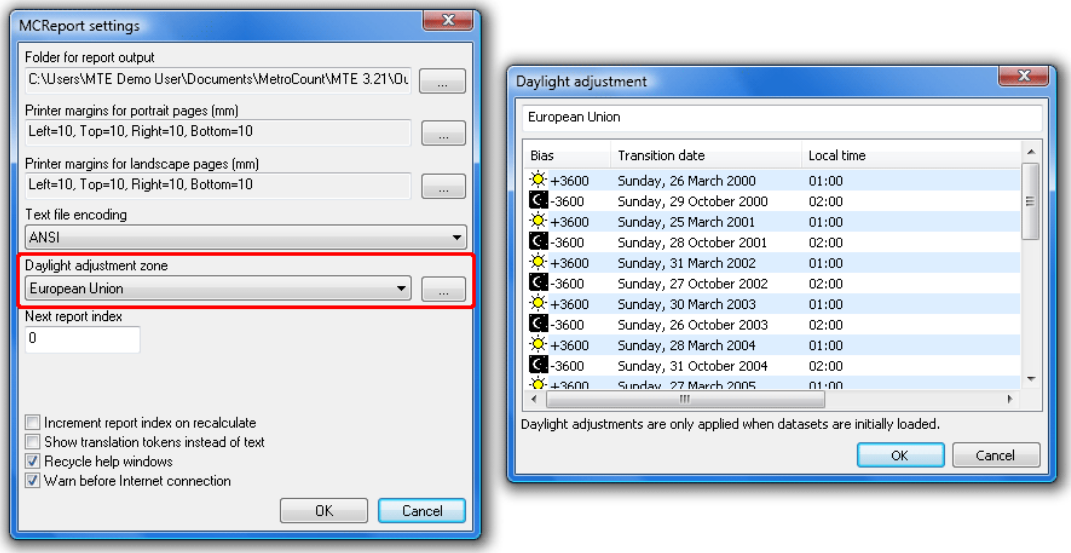
Profile:	
Filter time:	**00:00 Wednesday, 27 July 2005 => 00:00 Tuesday, 16 August 2005**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range:	10 - 160 km/h.
Direction:	North, East, South, West (bound)
Separation:	All - (Headway)
Name:	Default Profile
Scheme:	Vehicle classification (ARX), [UKSignal]
Units:	Metric (meter, kilometer, m/s, km/h, kg, tonne)

Phase Map name included in report header

Daylight Saving

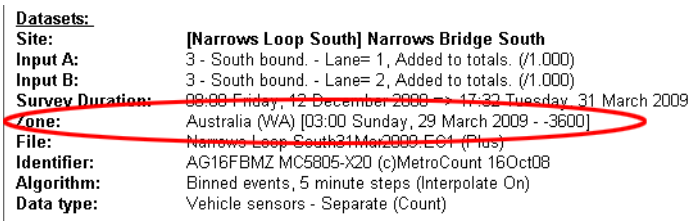
MCReport now includes support for Daylight Saving transitions during a survey period. This is achieved by adding an empty period of data at the beginning transition, and removing a period of overlapped data at the ending transition.

The Daylight Saving zone is set in MCReport's Global Settings, by selecting **Tools » Settings** from MCReport's main menu. The selected zone will be applied to all datasets. Each zone has an entry per year, to allow for years with exceptional changes.



Adjusting for Daylight Saving

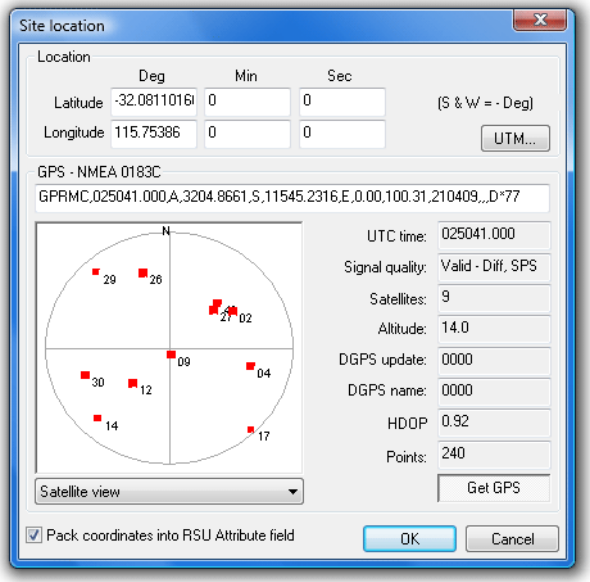
The selected Daylight Saving zone is displayed in each report's header. Transitions that occur within the duration of the report will be listed next to the zone.



Daylight Saving transitions are indicated in the report header

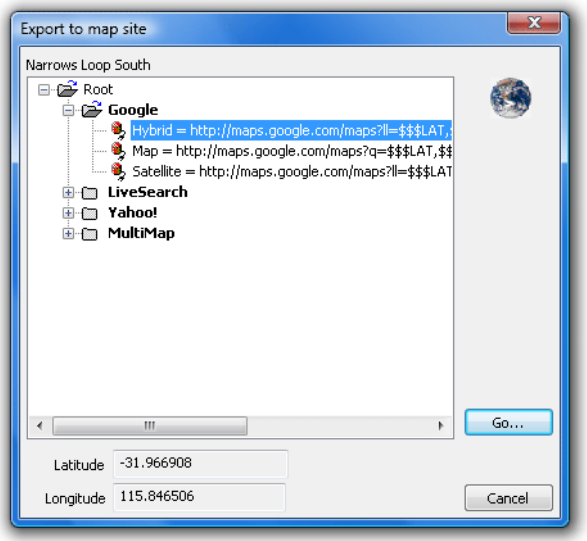
GPS Support

MCSetup's GPS support for setting site coordinates is now continuously updating, with a satellite signal-strength display. Coordinates can be placed into the **Attribute** setup field using the check-box option at the bottom.



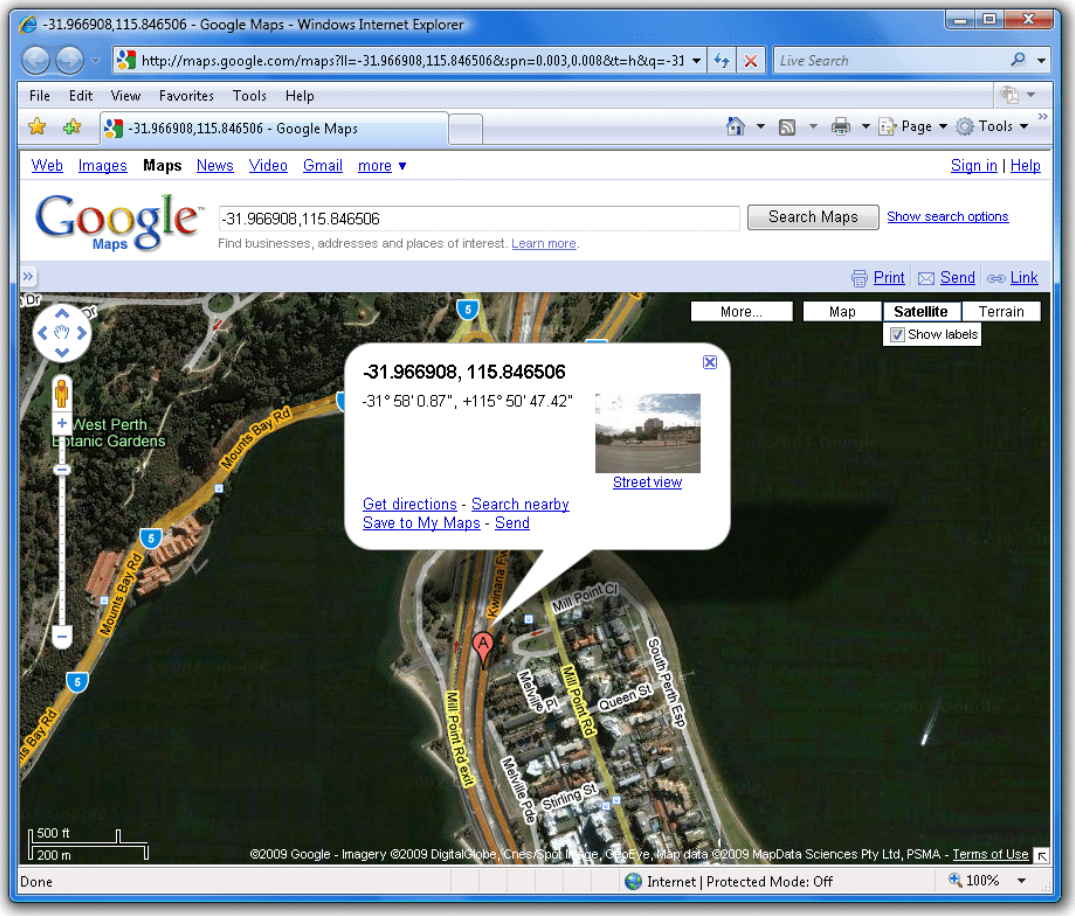
Retrieving site coordinates from a GPS

Datasets with site coordinates in their Attribute field can be automatically exported to a range of common mapping websites, by right-clicking the dataset in MCReport's File Tree view, and selecting **Export location**.



Exporting a site's location to common mapping websites

A web browser will be opened with the selected mapping site.



Example of site exported to Google Maps

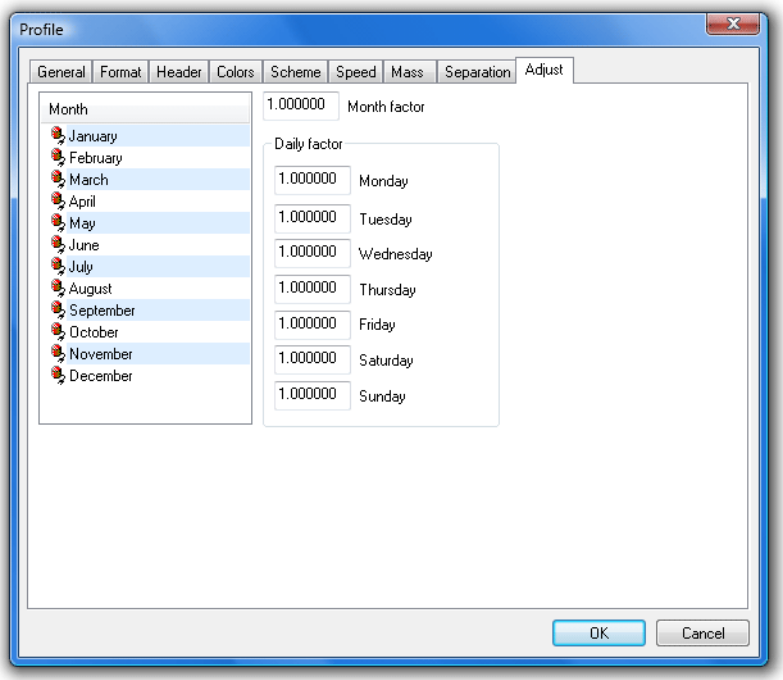
Adjusted Vehicle Flow Report

The **Adjusted Vehicle Flow** report analyses ADT and AADT for a site.

The first part of the report lists daily total volume, along with an adjusted volume, using adjustment factors entered into the report's Profile.

Day	Hits	RawVol	DayFac	MonFac	AdjVol	- Date
0	4	55553	1.000	1.000	55553.000	- Monday, 1 January 2007
1	4	76052	1.000	1.000	76052.000	- Tuesday, 2 January 2007
2	4	80462	1.000	1.000	80462.000	- Wednesday, 3 January 2007
3	4	84360	1.000	1.000	84360.000	- Thursday, 4 January 2007
4	4	85198	1.000	1.000	85198.000	- Friday, 5 January 2007
5	**4**	**61475**	**1.000**	**1.000**	**61475.000**	**- Saturday, 6 January 2007**
6	**4**	**53277**	**1.000**	**1.000**	**53277.000**	**- Sunday, 7 January 2007**
...	.	.....	.....	.....	.....	. .....
359	4	45084	1.000	1.000	45084.000	- Wednesday, 26 December 2007
360	4	65799	1.000	1.000	65799.000	- Thursday, 27 December 2007
361	4	69659	1.000	1.000	69659.000	- Friday, 28 December 2007
362	**4**	**57594**	**1.000**	**1.000**	**57594.000**	**- Saturday, 29 December 2007**
363	**4**	**51905**	**1.000**	**1.000**	**51905.000**	**- Sunday, 30 December 2007**
364	4	68801	1.000	1.000	68801.000	- Monday, 31 December 2007

Daily volume and adjusted volume



Entering adjustment factors

The second part of the report lists the calculated ADT/AADT, split into weekdays and weekends, and a list of adjustment factors calculated from the available data.

Total days = 364, Coverage = 99.73%
ADT = 84717.712, SD = 16507.040
AADT = 84717.712, SD = 16507.040

Weekdays = 260, Coverage = 71.23%
AWDT = 93298.912, SD = 9766.783
AAWDT = 93298.912, SD = 9766.783

Weekend days = 104, Coverage = 28.49%
AWET = 63264.712, SD = 8358.135
AAWET = 63264.712, SD = 8358.135

ADT and adjustment factor by month

Jan	Vol =	2510431,	Days =	31,	ADT =	80981.645,	Adjust =	1.04613,	1/Adjust = 0.95590
Feb	Vol =	2497098,	Days =	28,	ADT =	89182.071,	Adjust =	0.94994,	1/Adjust = 1.05270
Mar	Vol =	2725072,	Days =	31,	ADT =	87905.548,	Adjust =	0.96374,	1/Adjust = 1.03763
Apr	Vol =	2431368,	Days =	30,	ADT =	81045.600,	Adjust =	1.04531,	1/Adjust = 0.95665
May	Vol =	2606075,	Days =	31,	ADT =	84066.935,	Adjust =	1.00774,	1/Adjust = 0.99232
Jun	Vol =	2512904,	Days =	30,	ADT =	83763.467,	Adjust =	1.01139,	1/Adjust = 0.98874
Jul	Vol =	2493906,	Days =	30,	ADT =	83130.200,	Adjust =	1.01910,	1/Adjust = 0.98126
Aug	Vol =	2675253,	Days =	31,	ADT =	86298.484,	Adjust =	0.98168,	1/Adjust = 1.01866
Sep	Vol =	2533981,	Days =	30,	ADT =	84466.033,	Adjust =	1.00298,	1/Adjust = 0.99703
Oct	Vol =	2665100,	Days =	31,	ADT =	85970.968,	Adjust =	0.98542,	1/Adjust = 1.01479
Nov	Vol =	2681718,	Days =	30,	ADT =	89390.600,	Adjust =	0.94773,	1/Adjust = 1.05516
Dec	Vol =	2504341,	Days =	31,	ADT =	80785.194,	Adjust =	1.04868,	1/Adjust = 0.95358

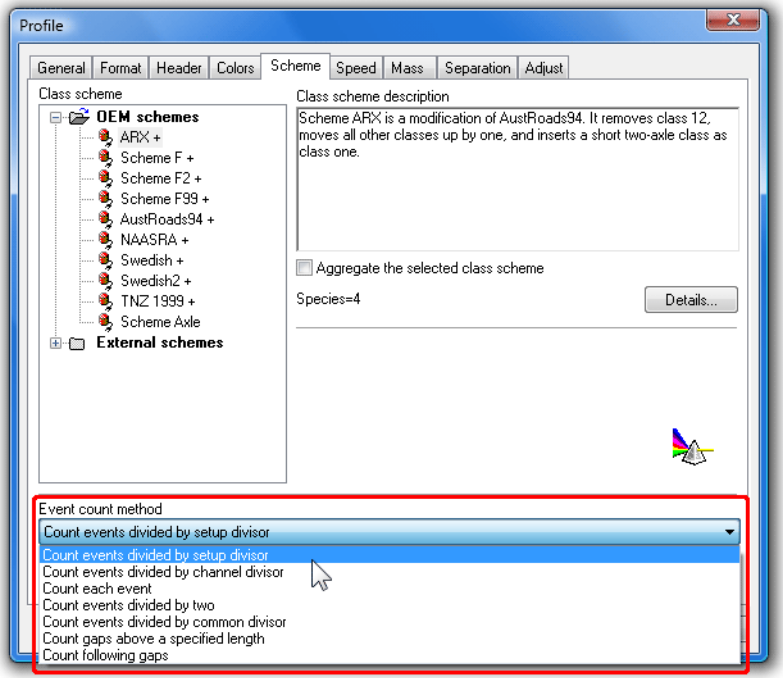
ADT and adjustment factor by day of week

Mon	Vol =	4620210,	Days =	53,	ADT =	87173.774,	Adjust =	0.97183,	1/Adjust = 1.02899
Tue	Vol =	4845416,	Days =	52,	ADT =	93181.077,	Adjust =	0.90917,	1/Adjust = 1.09990
Wed	Vol =	4913070,	Days =	52,	ADT =	94482.115,	Adjust =	0.89665,	1/Adjust = 1.11526
Thu	Vol =	4990648,	Days =	52,	ADT =	95974.000,	Adjust =	0.88272,	1/Adjust = 1.13287
Fri	Vol =	4888373,	Days =	51,	ADT =	95850.451,	Adjust =	0.88385,	1/Adjust = 1.13141
Sat	Vol =	3635712,	Days =	52,	ADT =	69917.538,	Adjust =	1.21168,	1/Adjust = 0.82530
Sun	Vol =	2943818,	Days =	52,	ADT =	56611.885,	Adjust =	1.49647,	1/Adjust = 0.66824

Adjusted Vehicle Flow totals and adjustment factors

Event Count Method

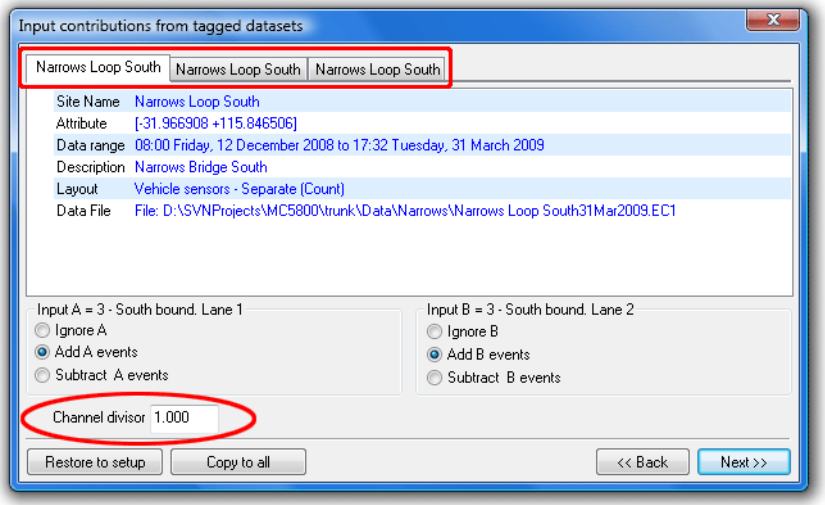
The **Event Count Method** used by MCReport's Event Count reports has a range of new options for automatically detecting the *natural* count divisor for a given dataset, and for supporting mixed data types in a single report.



Selecting an Event Count Method

The default method is now **Count events divided by setup divisor**, which automatically divides the totals from each dataset by the natural divisor for the type of data. For example, data from a MetroCount 5600 that uses axle sensors, will be divided by two. Data from a MetroCount 5805 that uses loops to count vehicles, will be divided by one. This allows data from different sources to be combined into a single report.

Another new method is **Count events divided by channel divisor**, which uses a unique, manually assigned divisor for each tagged dataset in an Event Count report.



Manually setting the divisor for each dataset

Event List Report

The Event List report now supports multiple datasets, and has the option to list all included lanes separately.

Column Legend: Date,Time,<->,Total,A,B,0,1,2,3,4,5,6

*** Monday, 15 December 2008**

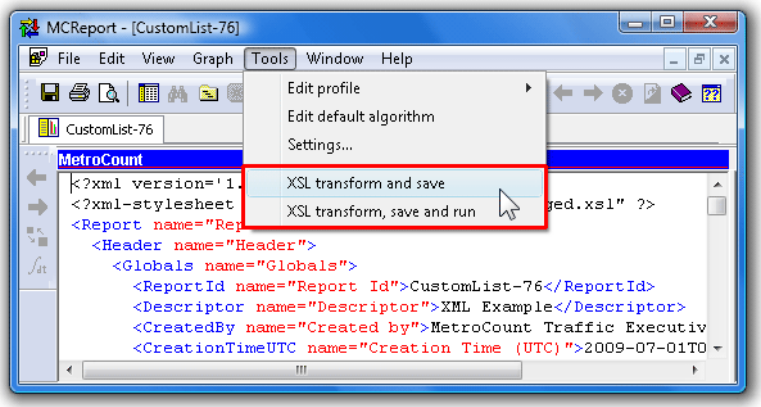
2008-12-15,00:00,60,	549,	255,	294,	0,	66,	107,	141,	186,	48,	1
2008-12-15,01:00,60,	251,	116,	135,	0,	35,	44,	59,	91,	22,	0
2008-12-15,02:00,60,	162,	64,	98,	0,	10,	27,	43,	71,	11,	0
2008-12-15,03:00,60,	192,	72,	120,	0,	20,	27,	44,	93,	8,	0
2008-12-15,04:00,60,	446,	206,	240,	0,	27,	29,	99,	211,	80,	0
2008-12-15,05:00,60,	1399,	738,	661,	0,	42,	102,	303,	559,	393,	0
2008-12-15,06:00,60,	3816,	2273,	1543,	0,	208,	391,	811,	1145,	1254,	7
2008-12-15,07:00,60,	5174,	3116,	2058,	0,	474,	678,	1045,	1363,	1597,	17
2008-12-15,08:00,60,	5358,	3094,	2264,	0,	629,	900,	1063,	1340,	1402,	24
2008-12-15,09:00,60,	4428,	2505,	1923,	0,	493,	702,	967,	1203,	1045,	18
2008-12-15,10:00,60,	4435,	2477,	1958,	0,	488,	721,	986,	1221,	1003,	16
2008-12-15,11:00,60,	4625,	2638,	1987,	0,	613,	749,	993,	1223,	1032,	15
2008-12-15,12:00,60,	4847,	2780,	2067,	0,	636,	798,	1079,	1252,	1065,	17
2008-12-15,13:00,60,	4868,	2785,	2083,	0,	568,	784,	1068,	1283,	1149,	16
2008-12-15,14:00,60,	5725,	3297,	2428,	0,	632,	934,	1259,	1473,	1406,	21
2008-12-15,15:00,60,	6857,	4040,	2817,	0,	756,	1085,	1444,	1713,	1840,	19
2008-12-15,16:00,60,	7897,	4687,	3210,	0,	1322,	1577,	1593,	1601,	1772,	32
2008-12-15,17:00,60,	7954,	4851,	3103,	0,	1659,	1617,	1534,	1445,	1658,	41
2008-12-15,18:00,60,	5722,	3300,	2422,	0,	787,	1031,	1236,	1368,	1277,	23
2008-12-15,19:00,60,	3271,	1808,	1463,	0,	480,	574,	772,	879,	556,	10
2008-12-15,20:00,60,	2450,	1334,	1116,	0,	349,	418,	576,	691,	409,	7
2008-12-15,21:00,60,	2322,	1264,	1058,	0,	294,	380,	560,	674,	410,	4
2008-12-15,22:00,60,	1724,	910,	814,	0,	210,	296,	434,	515,	266,	3
2008-12-15,23:00,60,	899,	464,	435,	0,	110,	154,	243,	277,	111,	4

Using the Event List report to display all lanes for a site

Custom List XML

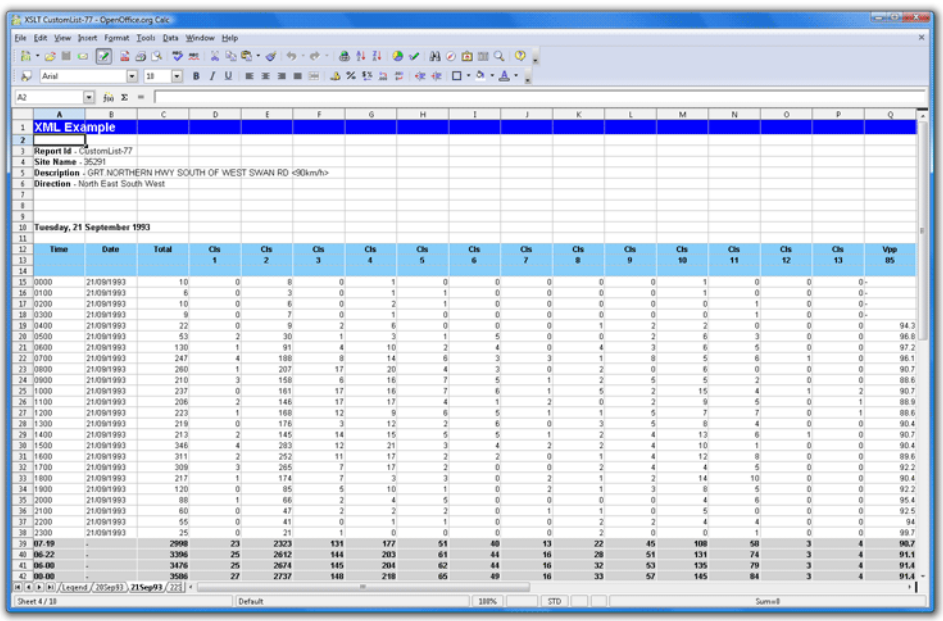
The options for applying XSL transforms to Custom List XML data now include two new options, both using MCReport's internal XSL processor:

- **XSL transform and save** - saves the transformed XML to the specified output file.
- **XSL transform, save and run** - automatically saves the transformed XML to the default report file name, then launches the application targeted by the XSL transform.



Exporting data with XML

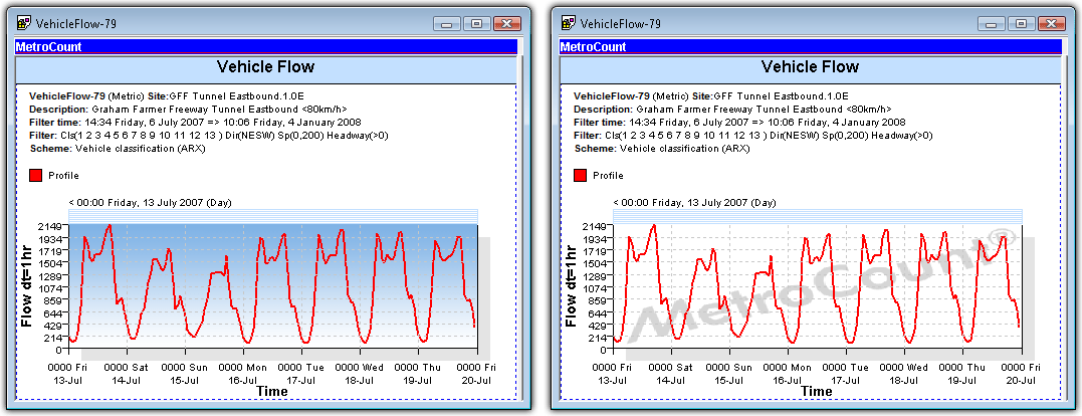
A new example XSL transform called **OpenOfficePaged** is included, which supports the spreadsheet application from OpenOffice.org - an open-source, free download available from Sun Microsystems, Inc. http://www.openoffice.org/



Example spreadsheet output

Graphical Reports

Graphical reports can now include a background image, with variable transparency. This is useful for applying colour gradients, or company watermarks. The background image is set on the **Format** page of a reports Advanced Profile options.



Applying a background image to a graphical report

Saving graphical reports as an image now supports a variety of compressed image formats, including PNG, GIF and JPG.

www.metrocount.com