

Using the Roadsoft Traffic Count Module

A Pragmatic Solution for Process Integration

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Presented By

- Jason Lucier, Ionia County Road Commission – since 2000
- IT Administrator
- Permit Agent
- Engineering

Data Collection and Entry

- Traffic study counter placement
 - 7 days (48 hrs minimum)
- Log placement of counter
- Recover counter / information
- Import information in Roadsoft

Select Study

Grand River Ave. 970' E of Jordan Lake Rd. 2017.rdf

Vehicle	Date/Time	Channel	Class	Speed (mph)	Gap (sec)	Axles	Spacing (in)	Accel (mph/sec)
1	04/11/2017 11:00:35.292 AM	WB	2	46.6		2	87	0.0
2	04/11/2017 11:01:17.165 AM	EB	3	88.7	41.8	2	149	0.0
3	04/11/2017 11:01:17.736 AM	WB	8	40.5	0.5	4	170, 332, 41	-1.1
4	04/11/2017 11:02:20.710 AM	EB	3	64.2	62.2	2	137	0.0
5	04/11/2017 11:03:21.830 AM	WB	2	46.6	61	2	99	0.0
6	04/11/2017 11:04:53.910 AM	EB	2	44.4	92	2	112	0.0
7	04/11/2017 11:05:09.291 AM	WB	2	46.6	15.2	2	87	11.4
8	04/11/2017 11:05:23.346 AM	EB	2	53.2	13.9	2	93	0.0
9	04/11/2017 11:05:43.598 AM	WB	5	62.1	20.2	2	193	12.3
10	04/11/2017 11:06:18.007 AM	EB	5	62.1	34.2	2	176	0.0

Grand Totals and ADT

Average Hourly Volumes

9:00 PM	8.0	13.2	21.2
10:00 PM	8.0	5.0	13.0
11:00 PM	5.2	2.3	7.5
Average Daily Traffic (ADT)	509.3	492.4	1001.7

Volume Totals

EB	WB	Combined
3158	3057	6215
50.8%	49.2%	

Classification Grand Totals

Classification Grand Totals

Study Grand Totals

	Total	Motor Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axis Single	< 5 Axle Double	5 Axle Double	> 6 Axle Double	> 6 Axle Multi	6 Axle Multi	> 6 Axle Multi
Combined	6215	60	2975	1940	54	993	37	2	77	65	3	0	1	5
		1.0%	47.9%	31.2%	0.9%	16.0%	0.6%	0.0%	1.2%	1.1%	0.0%	0.0%	0.0%	0.1%
EB	3156	38	232	1772	36	954	27	2	70	17	3	0	1	4
		1.2%	7.3%	56.1%	1.2%	30.2%	0.9%	0.1%	2.2%	0.5%	0.1%	0.0%	0.0%	0.1%
WB	3057	22	2743	165	16	39	10	0	7	51	0	0	0	1
		0.7%	89.7%	5.5%	0.5%	1.3%	0.3%	0.0%	0.2%	1.7%	0.0%	0.0%	0.0%	0.0%

Speed Study

Speed Grand Total

Average (Mean)	56.3 mph	Minimum	10.4 mph	Maximum	88.7 mph		
Percentile Speeds	<u>10%</u>	<u>15%</u>	<u>50%</u>	<u>85%</u>	<u>90%</u>		
(mph)	42.3	44.4	51.8	71.7	74.5		
Speeds Exceeded	<u>25 mph</u>	<u>35 mph</u>	<u>45 mph</u>	<u>55 mph</u>	<u>65 mph</u>	<u>75 mph</u>	
	99.6% (6188)	98.4% (6113)	82.0% (5096)	43.7% (2717)	28.9% (1797)	8.2% (507)	

Roadsoft Traffic Count Layer

Roadsoft: v2017.8 : Ionia (County)

File TAMC Asset Management Safety Analysis Reporting LDC Tools Settings Help

Map Layers

Point Layers

- Bridge
- Culvert
- Crash
- Point Pavement Marking
- Traffic Count
- Sign
- Intersection
- Traffic Signal

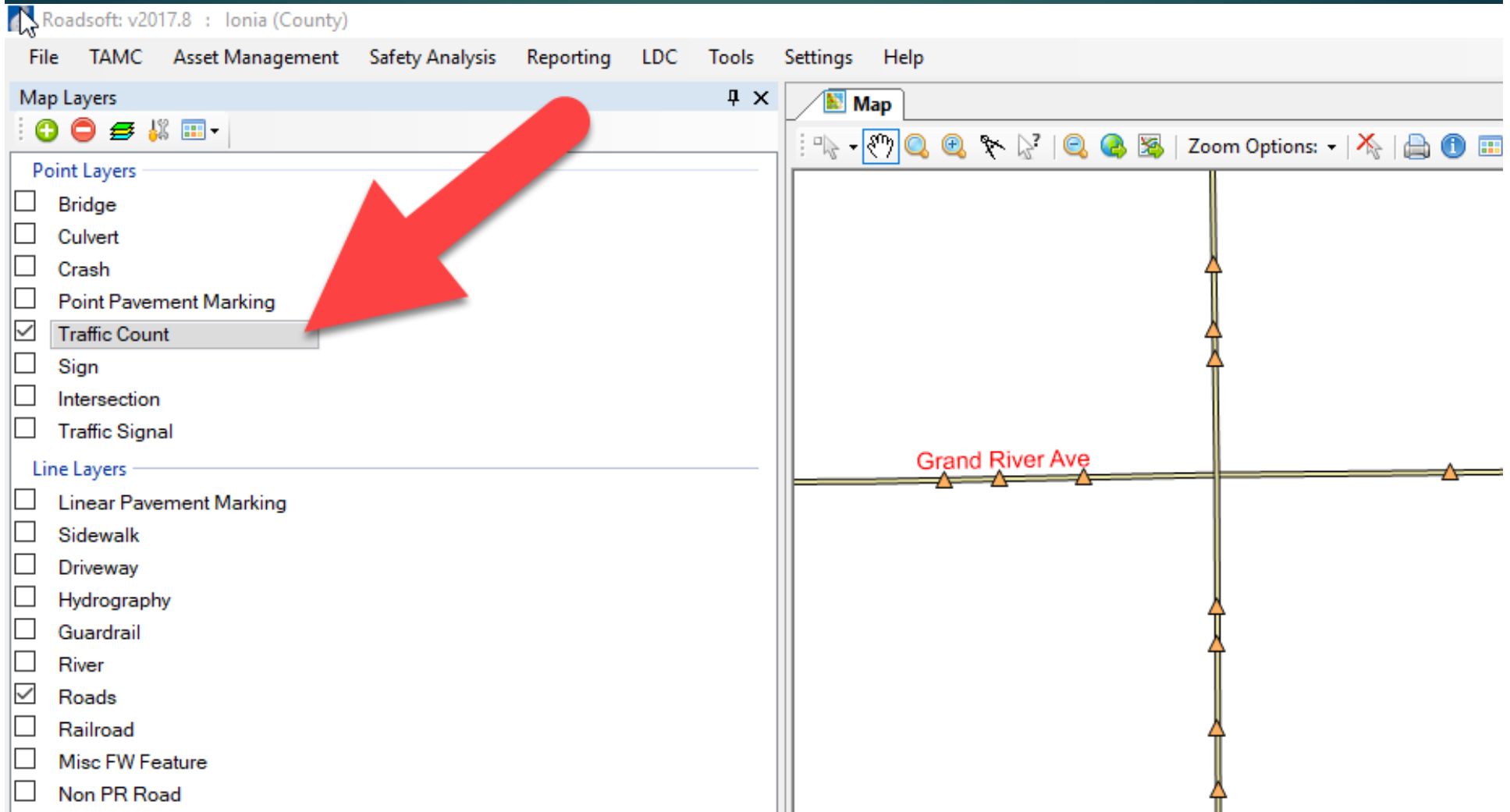
Line Layers

- Linear Pavement Marking
- Sidewalk
- Driveway
- Hydrography
- Guardrail
- River
- Roads
- Railroad
- Misc FW Feature
- Non PR Road

Map

Zoom Options: [Icons]

Grand River Ave

The image shows a screenshot of the Roadsoft v2017.8 software interface. The title bar indicates the project is 'Ionia (County)'. The main menu includes 'File', 'TAMC', 'Asset Management', 'Safety Analysis', 'Reporting', 'LDC', 'Tools', 'Settings', and 'Help'. On the left, the 'Map Layers' panel is open, showing two sections: 'Point Layers' and 'Line Layers'. In the 'Point Layers' section, the 'Traffic Count' checkbox is checked and highlighted with a red arrow. In the 'Line Layers' section, the 'Roads' checkbox is also checked. The main map area on the right shows a road network. A horizontal road is labeled 'Grand River Ave' in red text. Several orange triangles are placed along the roads, representing traffic count locations. The map area includes a toolbar with various navigation and tool icons, and a 'Zoom Options' dropdown menu.

Add Feature – Traffic Count

Edit Traffic Count Station Location

Place Asset on Map

Change Reference Road on Map

Change Reference Intersection on Map

Visible Shapes

- Township
- Road

Milepoint: 9.318

Reference Distance: 1500 Feet

OK

Traffic Station Details

Map Traffic Count Module

Selected Station / PR Info


Roads with Selected Stations

PR No	Road Name
505403	Grand River Ave

Selected Stations on Grand River Ave

Milepoint	Intersection Name	Ref Miles
9.306	Grand River Ave & Jordan Lake Rd	0.272
9.318	Grand River Ave & Jordan Lake Rd	0.284

Station Road Segments



Selected Road Segments:

RoadName	PRNo	Bmp	Emp
Grand River Ave	505403	0.284	10.000

Station Details

Undo Save

Station Location [Edit Location...](#)

City/Twp	Berlin Twp
Reference Intersection	Grand River Ave & Jordan Lake Rd
Milepoint	9.318
<input type="checkbox"/> GPS Coordinates	
GPS Located	False
Latitude	0.0000000
Longitude	0.0000000

Station Information

Station ID	
Memo	
Percent Commercial	0.0
AADT	0
AWDT	0
ADT	0

[Delete Station...](#)

Volume History:

Traffic Volume Count History [Add Count Summary...](#)

[Add Count Summary with Detail...](#)

Add Count Summary

The image shows a software interface with two main windows. The background window is titled 'Station Details' and contains a form with the following sections:

- Station Location**: Includes fields for City/Twp (Berlin Twp), Reference Intersection (Grand River Ave & Jordan Lake Rd), Milepoint (9.318), and GPS Coordinates (GPS Located: False, Latitude: 0.0000000, Longitude: 0.0000000).
- Station Information**: Includes Station ID, Memo, Percent Commercial (0.0), AADT (0), AWDT (0), and ADT (0).
- Settings**: A collapsed section at the bottom.

The foreground window is titled 'Add Traffic Count' and contains a form with the following sections:

- Count Specifics**: Includes Start Date (09/11/2016), Start Time (11:00 PM), Count Type (Actual), Recorder Type (Mobile), Duration (7 Day), Interval (1 Hour), Lanes Counted (Both), Number of Lanes (2), Lane of Travel (Undefined), and Source (JI).
- Counts**: Includes Vehicle Count (6215).

At the bottom of the 'Add Traffic Count' window are 'Save' and 'Cancel' buttons.

Add ADT

The screenshot displays a software interface with a 'Station Details' window and an 'Add ADT' dialog box. The 'Add ADT' dialog box is open, showing the following details:

ADT Specifics	
ADT	1002
ADT Date	09/11/2016
Actual	True

At the bottom of the dialog box are 'Save' and 'Cancel' buttons.

The background window shows the 'Station Details' window with a sidebar containing 'Station Location', 'Station Information', and 'Settings'. The main area displays the 'Traffic Volume Count History' table:

Traffic Volume Count History	
	Add Count Summary...
	Add Count Summary with Detail...
<input type="checkbox"/> 9/11/2016 7 Day 1 Hour	Delete...
	Add ADT...
<input checked="" type="checkbox"/> Number of Vehicles	6215
Count Type	Actual
Recorder Type	Mobile
Date Started	9/11/2016 11:00 PM
Date Ended	9/18/2016 11:00 PM
Duration	7 Day
Interval	1 Hour
Lanes Counted	Both
Number of Lanes	2
Lane of Travel	Undefined
Source	J1

Below the table is a 'Settings' section.

Add Percent Commercial Traffic

Station Details Undo Save

[Edit Location...](#)

City/Twp	Berlin Twp
Reference Intersection	Grand River Ave & Jordan Lake Rd
Milepoint	9.318
GPS Coordinates	
GPS Located	False
Latitude	0.0000000
Longitude	0.0000000
Station Information	
Station ID	
Memo	
Percent Commercial	28
AADT	0
AWDT	0
ADT - 9/11/2016	1002
Delete Station...	
Settings	
Show Field Comments	<input checked="" type="checkbox"/> True

Volume History:

Traffic Volume Count History [Add Count Summary...](#)
[Add Count Summary with Detail...](#)

9/11/2016 7 Day 1 Hour [Delete...](#)
[Add ADT...](#)

Number of Vehicles	6215
Count Type	Actual
Recorder Type	Mobile
Date Started	9/11/2016 11:00 PM
Date Ended	9/18/2016 11:00 PM
Duration	7 Day
Interval	1 Hour
Lanes Counted	Both
Number of Lanes	2
Lane of Travel	Undefined
Source	J1

Settings

Actual	ADTDate	ADT
<input type="checkbox"/>	<input checked="" type="checkbox"/>	9/11/2016 1002

Show Field Comments
Show/Hide comments.

AWDT AADT ADT

Station Selection

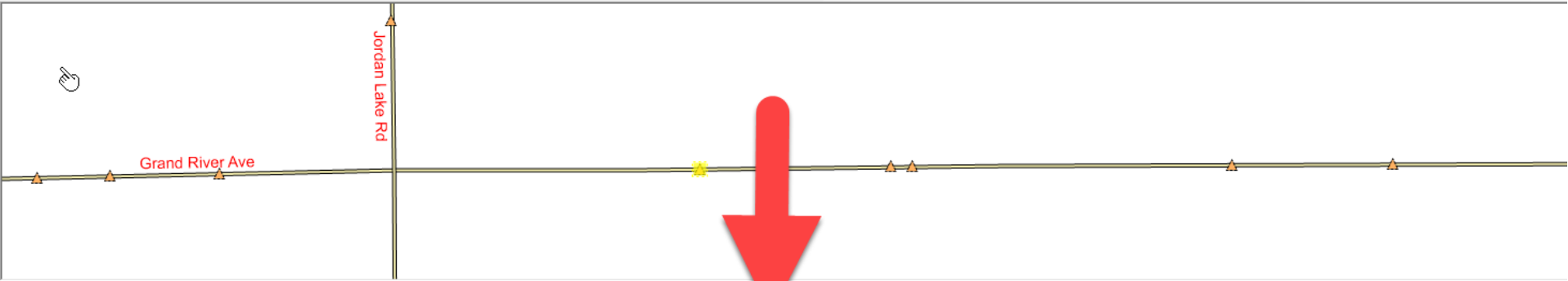
The screenshot displays a software interface for traffic count management. At the top, there is a title bar with 'Map' and 'Traffic Count Module'. Below this is a toolbar with various icons and a dropdown menu labeled 'Add Feature'. The main area is a map showing a road network. A vertical road is labeled 'Jordan Lake Rd' and a horizontal road is labeled 'Grand River Ave'. A red arrow points to a yellow star icon on the Grand River Ave road. Below the map, there is a status bar showing 'Active Layer: Traffic Count' and coordinates '42° 53' 7.07" N, 85° 7' 53.54" W'. At the bottom, there is a table titled 'Selection Information : Traffic Count' with the following data:

PRNo	PR	Milepoint	Latest Station AADT	AADT Year	Latest Station ADT	ADT Date	CountType	TrafficCount	Lanes Counted	StartTime	EndTime	Duration	Interval	Recorder Type	LaneOfTravel
505403	505403: Grand River Ave	9.318			1002	9/11/2016	Actual	6215	Both	9/11/2016 11:00 PM	9/18/2016 11:00 PM	7 Day	1 Hour	Mobile	Undefined

View Historical Data

Map Traffic Count Module

Zoom Options: [Icons] Filter View Module Add Feature



Active Layer: Traffic Count 42° 53' 8.71" N, 85° 7' 51.23" W

Selection Information : Traffic Count

PRNo	PR	Milepoint	Latest Station AADT	AADT Year	Latest Station ADT	ADT Date	Count Type	TrafficCount	Lanes Counted	StartTime	EndTime	Duration	Interval	Recorder Type	LaneOfTravel
505403	505403: Grand River Ave	9.202					Actual	992	Both	7/14/2008	7/15/2008	24 Hour	1 Hour	Mobile	Undefined
505403	505403: Grand River Ave	9.202					Actual	1046	Both	8/23/2002	8/25/2002	48 Hour	1 Hour	Mobile	Undefined

Road Layer Selection

Roadsoft 2017.8 : Ionia (County)

File TAMC Asset Management Safety Analysis Reporting LDC Tools Settings Help

Map Layers

Map Traffic Count Module Road Module

Road Segment

Zoom Options: Filter View Module Add Feature

Point Layers

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Line Layers

- Linear Pavement Marking
- Sidewalk
- Driveway
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The screenshot displays the Roadsoft 2017.8 interface. The main map area shows a road network with a horizontal road labeled "Grand River Ave" and a vertical road labeled "Jordan". A red arrow points to a road segment on "Grand River Ave". The "Map Layers" panel on the left shows the "Roads" layer selected under "Line Layers". The "Traffic Count" layer is also selected under "Point Layers". The "Road Segment" dropdown menu is set to "Road Segment".

Access More Info - Road Module

The screenshot displays a software interface with three main panels:

- Documents Panel (Left):** Shows a file explorer with two PDF files. The file `2017GrandRiver Ave-TrafficStudy.pdf` is circled in red.
- Road Data Panel (Middle):** A table with the following data:

Segm...	Grand River Ave
From	Jordan Lake Rd
To	Ainsworth Rd
City/T...	Berlin Twp
Maint...	Yes
Physical/Design	
Numb...	2
Surfa...	21.00
Right ...	100.00
Divide...	Undivided
Acces...	No Access Control
Media...	Undivided
Traffic...	Two-way
Re...	All-Season (not weight restricted)
Restri...	
Traffic Volume	
Traffic...	Undefined
Road ...	Undefined
% Co...	28.0
Miscellaneous	
User I...	
Memo	1 house, 10-26-87
- Surface and PASER Rating Panel (Right):**
 - Surface:**

Surface ...	Composite (Asphalt)
MIRE Su...	AC Overlay over Existing Jointed Concrete
Current P...	1 - Failed
RSL	-14
Confiden...	86
YLR	
 - PASER Rating/Treatment History:**

Add PASER Re	
5/18/2015	
PA...	2 - Very Poor
5/7/2014	
PA...	2 - Very Poor
5/30/2013	
PA...	2 - Very Poor
6/7/2012	
PA...	3 - Poor
6/8/2011	
PA...	2 - Very Poor
6/22/2009	
PA...	2 - Very Poor
9/18/2007	
PA...	3 - Poor

At the bottom, a red arrow points to the `Find file...` search bar. Below the search bar are tabs for `Documents`, `Curve/Qu...`, `Shoulder`, `User-Defi...`, and `Surface D...`. A toolbar contains buttons for `Print`, `Curve`, `Multi-edit`, `Undo`, and `Save`.

Why use Roadsoft for Traffic Counts?

- Easier access – current & historical data
 - Eliminate paper files or other electronic files

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- Road prioritization
 - to best select projects

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- Politics
 - Support maintenance & construction recommendations without subjectivity

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- TCO's
 - Traffic control orders, stop signs, speed limits, etc.
- Politics
 - Support maintenance & construction recommendations without subjectivity
- Permitting
 - Adjacent roadway can dictate commercial driveway, road approach, and similar project's site specific build & design consistently

QUESTIONS?