Colorado's Travel Monitoring Program

"Governmental Agencies Sharing Traffic Data"

Portland, Oregon– September 15, 2011

Presentation Outline

- CDOT's Current Traffic Data Program
  - Scope and Scale of the Motorized Program
- Optimizing/Expanding CDOT's Traffic Data Program
  - Business Process Work
  - Research and Survey Reports
  - Colorado's Statewide Traffic Data Committee
  - Technology Solutions and Implementations
- Accessing CDOT's Traffic Data Warehouse

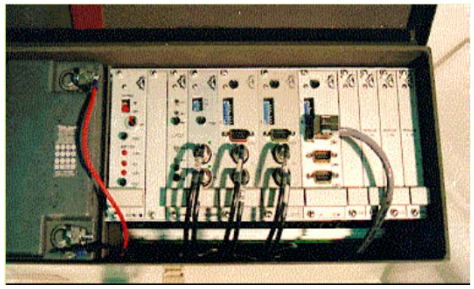
CDOT's Traffic Analysis Unit Mission

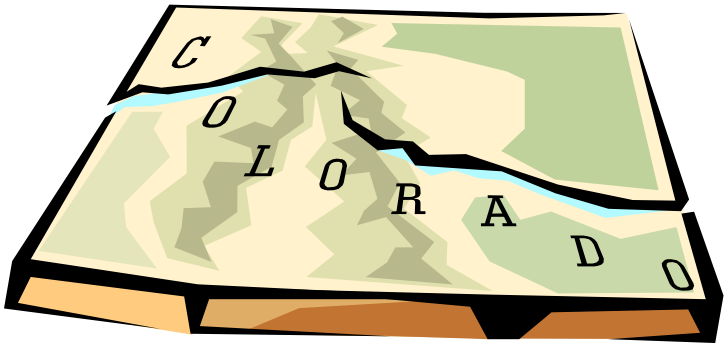
To provide traffic data by disseminating the best available, most comprehensive, accurate and up-to-date motorized and non-motorized traffic volume and classification data in the most efficient and effective methods as possible.

"CDOT is the steward of all motorized and non-motorized traffic volume and classification data for the State"

CDOT's "on-system" **Motorized** Traffic Program

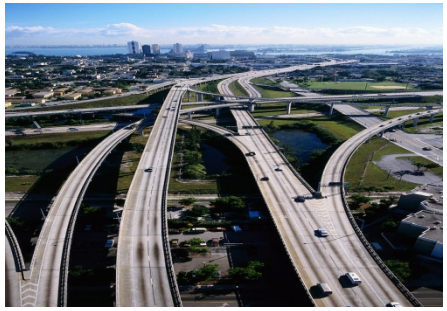
- Over **9,100** Miles of State Highways
  - ~ **3,300** Traffic Sections
  - ~ **100** Permanent Automatic Traffic Recorders (ATRs)
  - ~ **2,500** Short Duration Counts per Year Collected
  - Other Traffic Count Data Collected





CDOT's External "off-system" **Motorized** Traffic Program

- ~ **74,000** Miles of "off-system" Roadways
  - ~**58,800** County Miles and ~**15,300** City Miles
  - Multiple Agencies Collecting Data
  - Opportunities to Share Data and Expand the Colorado Traffic Data Warehouse
- Off-system is **8 Times more Miles**



~1,800,000

20 rows of statistics

6 consecutive years

15,000 count stations

All Motorized Count Stations!

How to add more work with no funding and no staff?

- Preparation, Readiness, Research
  - Communicate – break room conversations…
  - Attend webinars focused on bike/ped data
  - Talk to Vendors about equipment
  - Conduct current literature review
- Loaner Counters – Eco-Counter
- Kaiser Permanente - $50,000 Grant
- End of Year Left-over Money - $20,000 mobile count equipment
- Dedicated and enthusiastic staff
- Supportive Managers

How was bicycle and pedestrian data collected in the past?

What did CDOT find? Eco-Counters

- www.eco-counter.com

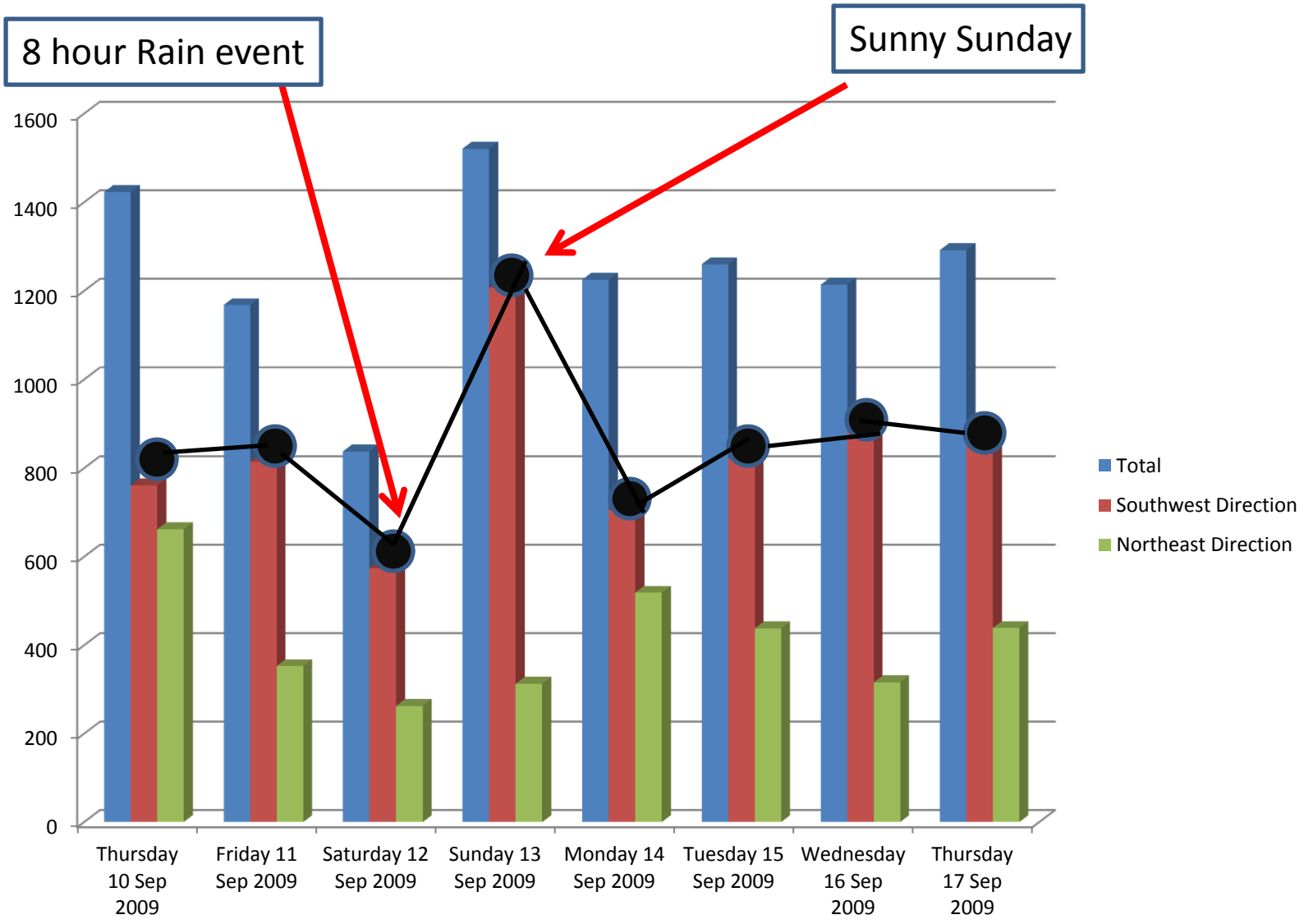
Non-Motorized Traffic Data Program

- Equipment
  - 6 Continuous Count Stations
    - Hourly data 365 days/year
    - Compared to ~100 motorized stations
  - 5 Mobile Counters
    - Short duration counts of no less than 24 hours
- Data
  - Continuous Data from the 6 continuous count sites
  - ~20 – 30 short duration counts/year (less than 1% of motorized)
    - Compared to 2500 short duration motorized counts annually
- Dedicated Staff
  - Zero staff formally allocated to the non-motorized program
  - 5 Analysts, 5 Data Collection Staff, 2 Managers, $250,000 contract for short duration counts/year

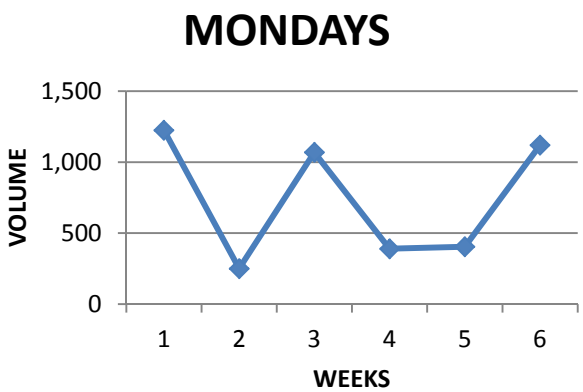
How to analyze bicycle and pedestrian data?

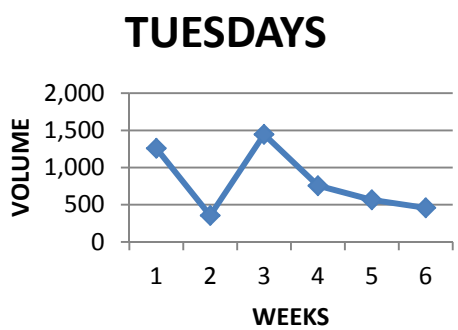
- Behavioral Patterns?
  - Weather patterns
  - Commuter patterns
    - Morning and evening (2) peaks indicating commute to work patterns
    - Weekend (1) one peak indicating recreational usage
  - Day of the Week patterns
    - Monday looks different than Wednesday looks different than Friday
    - Weekday versus weekend
  - Seasonal patterns
    - Drop in overall usage between seasons
  - Other patterns?

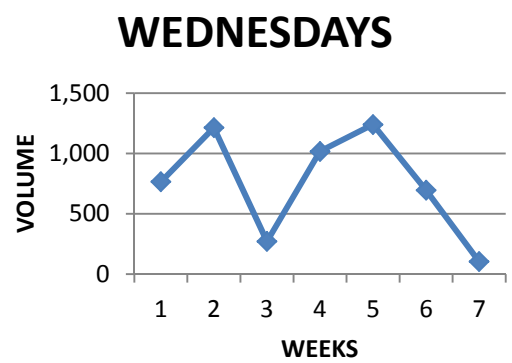
Cherry Creek Trail Bicycle and Pedestrian Day of the Week Data

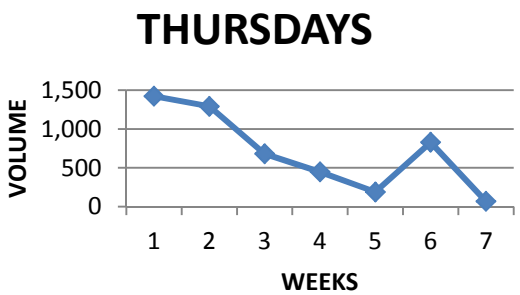


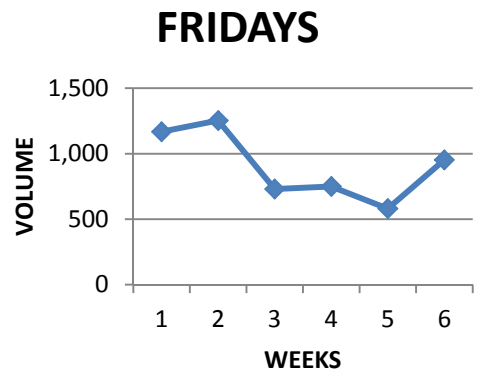
As you begin to analyze the data it starts to reveal distinct patterns…

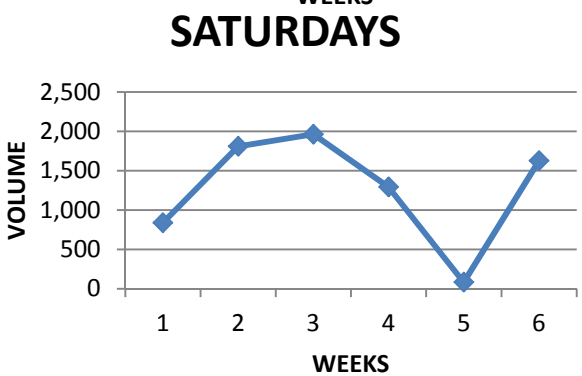


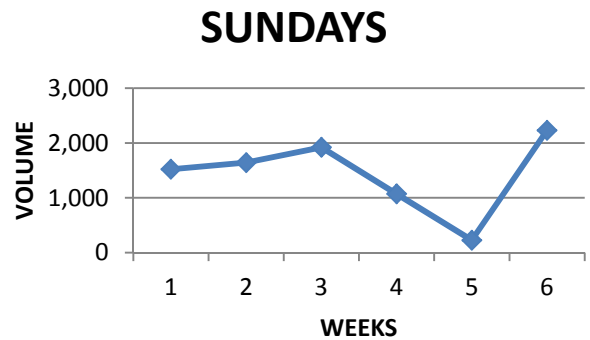




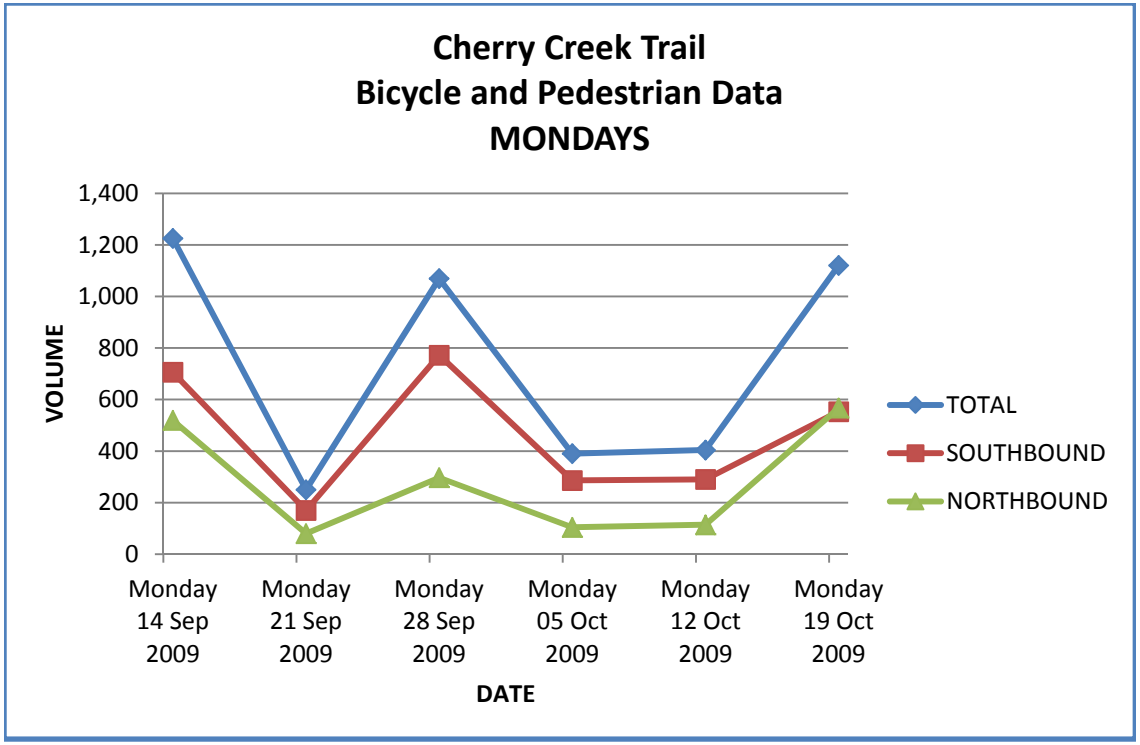






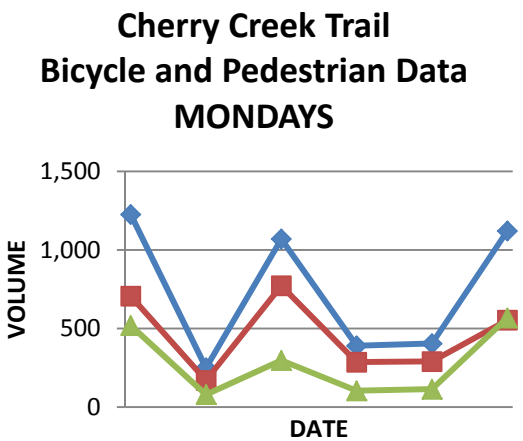


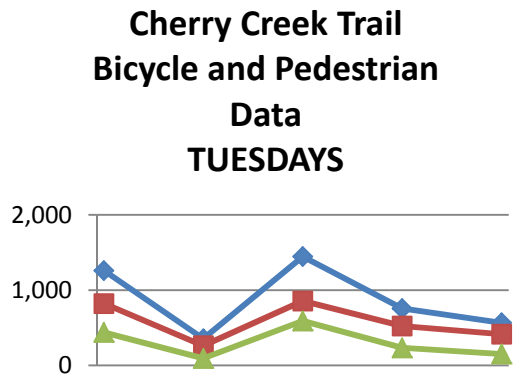
What does the data tell us? These distinct data patterns begin to tell a story…

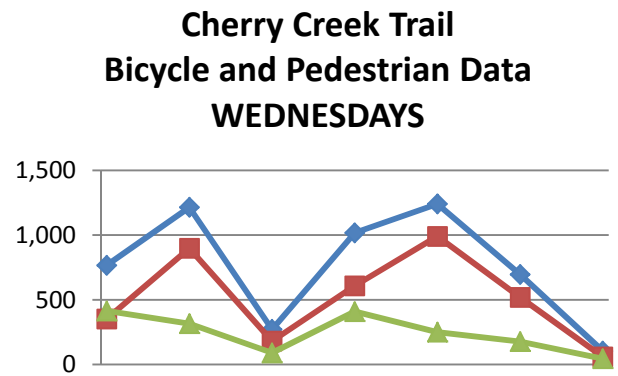


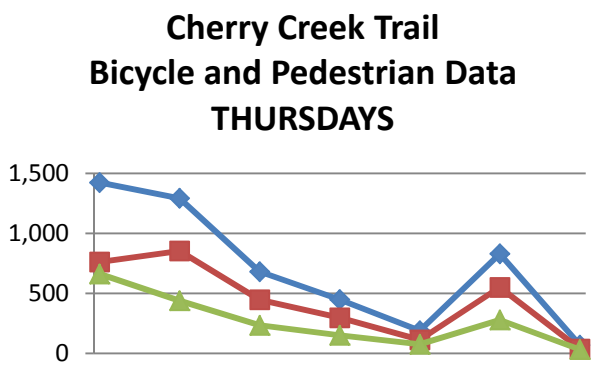
- Directional Data shows…more Southbound Traffic every Monday
- Traffic Volume Range ~580 to 1250
- Weather has an effect on Traffic
- Seasonal Pattern detected with an overall September to October Drop in Traffic

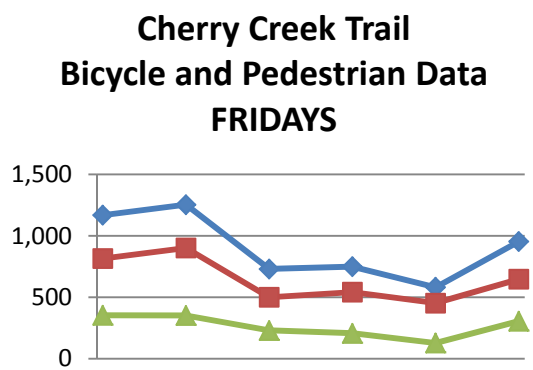
The story begins to answer policy questions so informed decisions can be made…

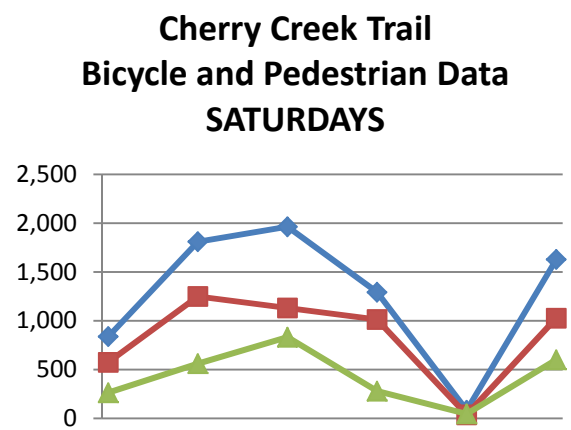






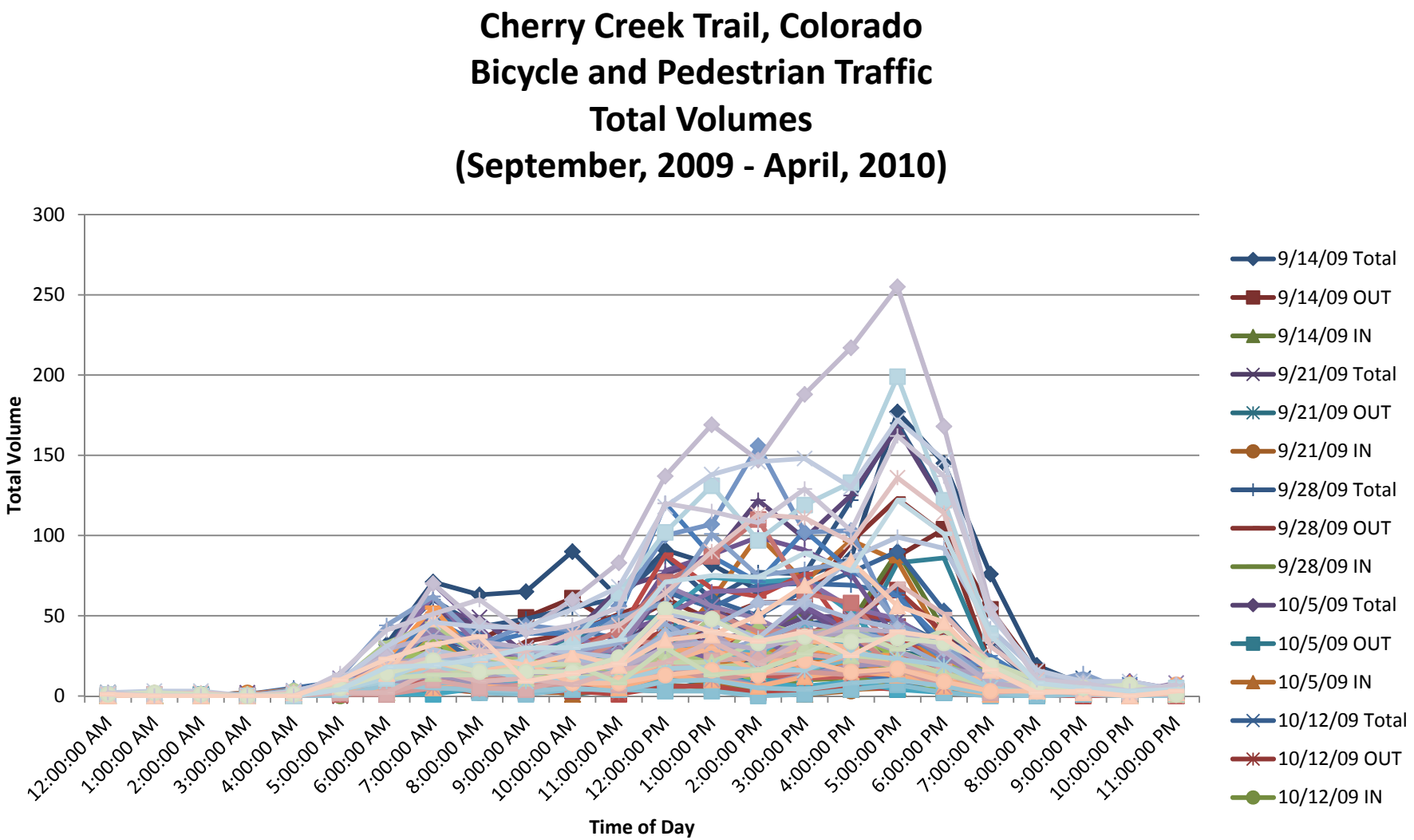




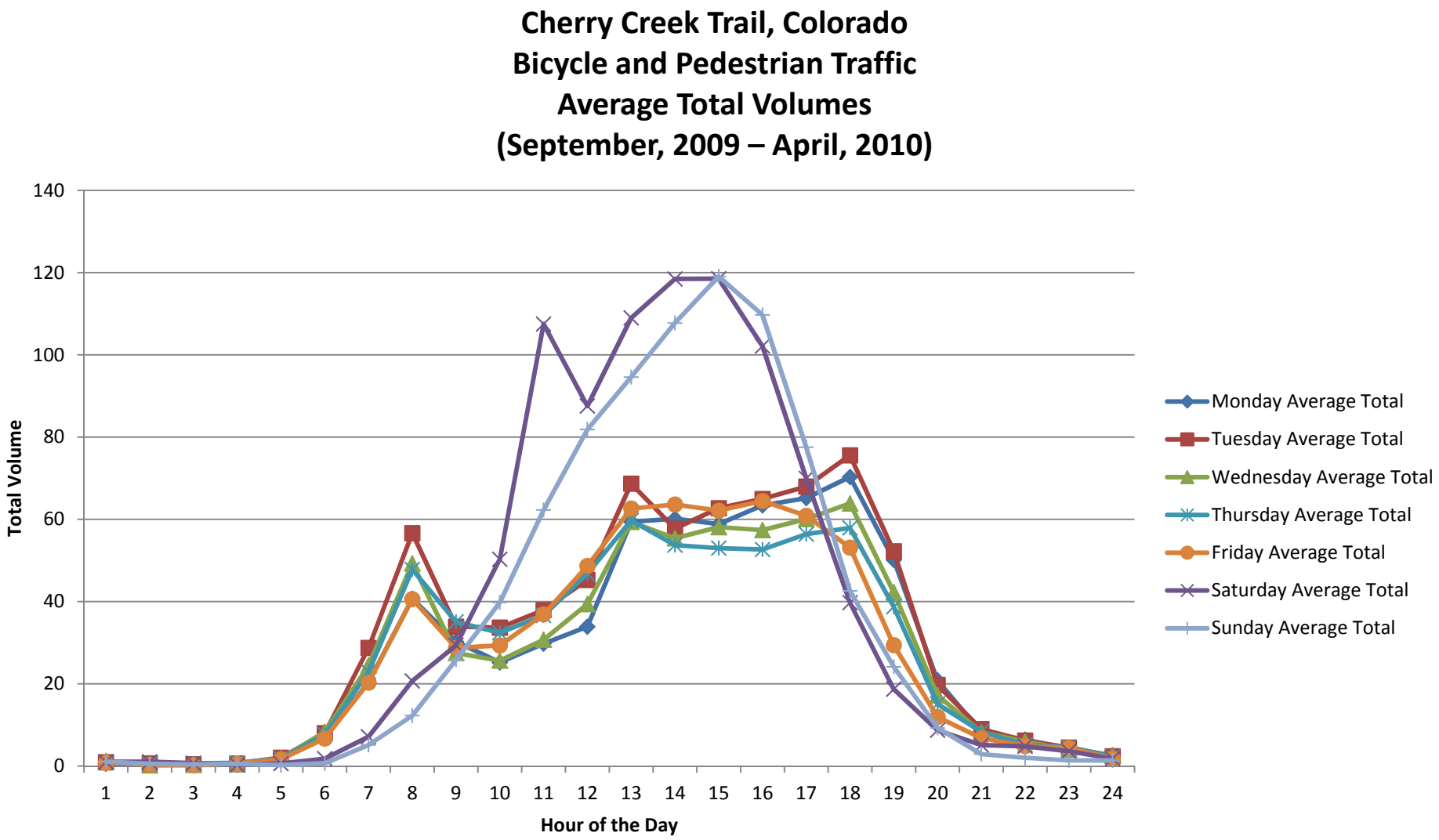


- More southbound Traffic Everyday of the week …
- Now funding allocations can be directed to usage by using data to justify improvements…

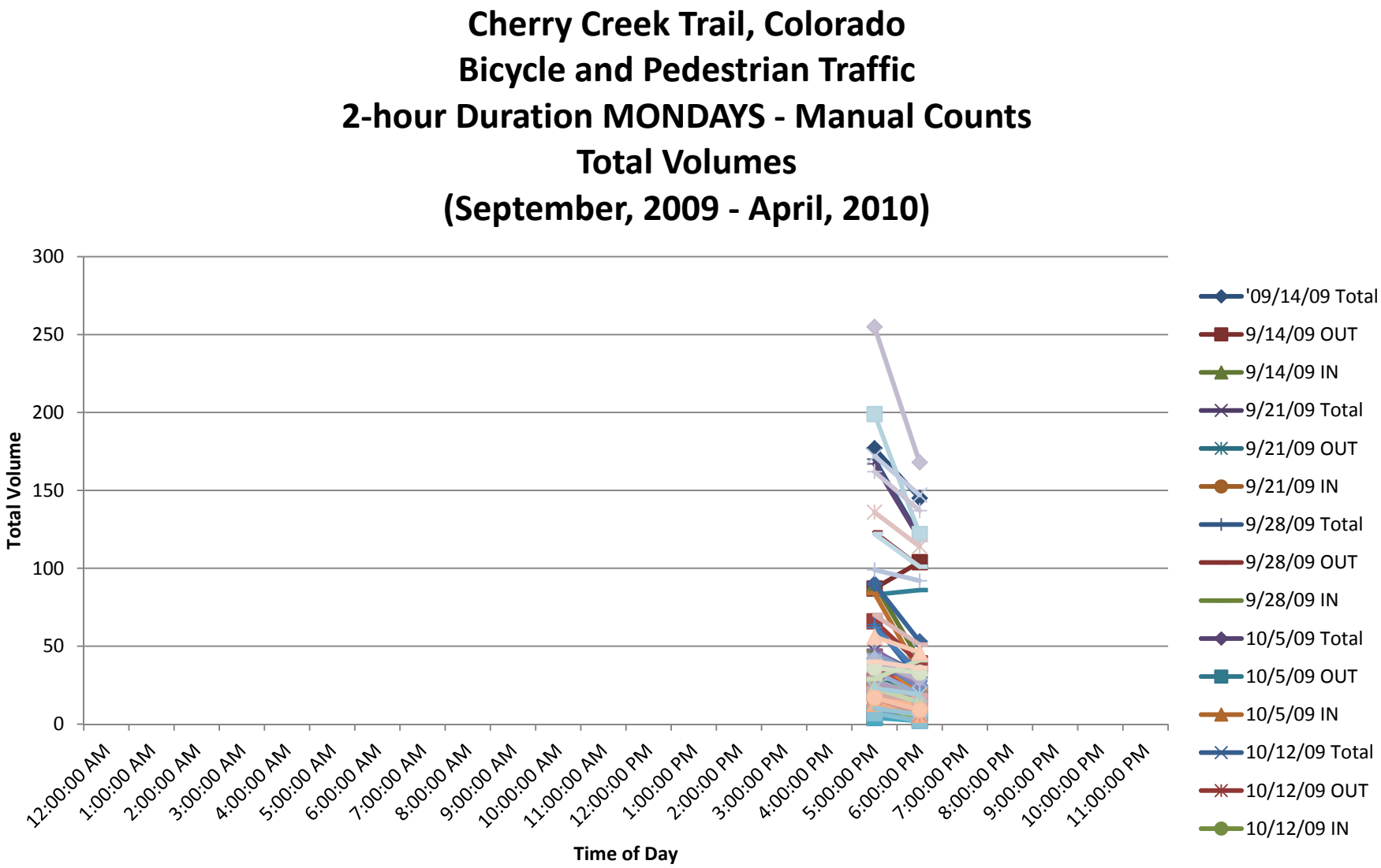
Begin to look for patterns…create graph of every Monday since September, 2009



Recreational versus Commuter Travel Patterns begin to emerge…



What kind of Data is available for – 2 hour Manual Counts? CDOT data prior to 2009?



Where to go from here?

How to address the…

- Challenges with funding (equipment/staff)
- Challenges with technology solutions
- Challenges with management support
- Other…

Solutions…

Follow motorized Traffic Data Programs…Why?

- FHWA and DOT Motorized Traffic Data Programs are a model for how to manage large data programs
- Methods for handling and integrating data are already established
  - With a few changes, non-motorized data can be managed
    - Calculating Daily/Monthly/Annual Statistics
    - Factoring Data, Selecting Sites, Mapping Sites, etc.
    - Annual Publication of Data (AADT)
- Leverage existing investments in technology
  - Hardware and software systems already in place
  - Staff with expertise in managing data
  - Organizational structure already established
- Need to establish regular data program funding stream instead of “start up” or enhancement funds

Research and Survey other States

- 2007 National Survey of State DOT Travel Monitoring Data Program Managers

http://apps.coloradodot.info/dataaccess/Downloads/Survey/SurveyResultsFINALREPORT.pdf

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Table 1 - General Contact Information

	General Contact Information			
#	State Name	State Traffic Monitoring Program Contact Name	Survey Status	State Contact Tit
1	Alabama	Charles W. Turney	Complete	Traffic Engineer
2	Alaska	MaryAnn Dierckman	Complete	Transportation Pl
3	Arizona	Mark Catchpole	Complete	Planner IV
4	Arkansas	Elizabeth Mayfield-Hart	Complete	Staff Planning Engineer, Techni Services
5	California	Joe Avis	Complete	Chief, Traffic Dat Photolog Branch

Table 3 – Verification of Centerline Miles Reported

#	State
1	Alabama
2	Alaska

2007 - Survey October 20 Performanc

Figure 1 - Number of Travel Mor

Table 4 - Contractors and Consultants List

#	State Name	Name of contactor(s)/consultant(s)
1	Alabama	N/A
2	Alaska	The Boutet Company (Northern and Central Region traffic data) Wostmann and Associates (Headquarters WIM data)
3	Arizona	Traffic Research & Analysis, Inc
4	Arkansas	The Traffic Group
5	California	N/A
6	Colorado	Traffic Data Services
7	Connecticut	N/A
8	Delaware	No Response
9	District of Columbia	N/A
10	Florida	Various District Offices using various consultants.
11	Georgia	Southern Traffic (for field collection) Mid Western Consulting (developed web site for displaying data) Northrop Grumman is working on a future traffic database solution.
12	Hawaii	1) Continuous Count Program Contractor: Econolite Control Products, Inc 2) Short-Term Program Contractor: The Traffic Group 3) WIM/Continuous Vehicle Classification (CVC) Contractor: International Road Dynamics
13	Idaho	N/A
14	Illinois	Gewalt Hamilton & Associates Terra Engineering
15	Indiana	N/A
16	Iowa	N/A
17	Kansas	N/A
18	Kentucky	Southern Traffic Services
19	Louisiana	Southern Traffic
20	Maine	No Response

Table 7 – Short-term Traffic Data Quantity of Sites

	SHORT-TERM PROGRAM TRAFFIC COUNTING QUESTIONS How many...								
#	State Name	total portable volume count sites	annual portable volume count sites	total portable classification axel count sites	annual portable classification axel count sites	total portable classification bin count sites	annual portable classification bin count sites	total portable WIM count sites	annual portable WIM count sites
1	Alabama	8,500	5,000	No Response	No Response	No Response	No Response	No Response	No Response
4	Alaska	5,600	2,000	0	0	200	100	0	0
2	Arizona	1200	1200	200	200	200	200	0	0
3	Arkansas	8,200	8,200	1,200	1,200	0	0	0	0
5	California	16,500	5,500	varies	No Response	No Response	No Response	0	0
6	Colorado	2200 average annually 3 year cycle	700 average annually 3 year cycle	1000 average annually 3 year cycle	300 average annually 3 year cycle	1000 average annually 3 year cycle	300 average annually 3 year cycle	35 average annually 5 year cycle	none
7	Connecticut	9600	3200	240	80	60	60	90	30
8	Delaware	No Response	No Response	No Response	No Response	No Response	No Response	No Response	No Response
9	District of Columbia	100	100	0	0	0	0	4	4
10	Florida	6529	6529	3036	3036	2830	2830	0	0
11	Georgia	18,000	10,300	n/a	n/a	1,100	1,100	90	30 (3 year cycle)
12	Hawaii	2,052	1005 in 2006	810	398 in 2006	No Response	No Response	No Response	No Response
13	Idaho	unknown	2500 average	unknown	200 average	0	0	0	0

Total number of State employees, (Full- managing) the federally mandated traffi							
State Agency: Data Collection	2.2% (1)	21.7% (10)	37.0% (17)	30.4% (14)	8.7% (4)	0.0% (0)	46
State Agency: Data Processing	0.0% (0)	**67.4% (31)**	21.7% (10)	8.7% (4)	2.2% (1)	0.0% (0)	46
State Agency: Data Dissemination	8.9% (4)	**71.1% (32)**	15.6% (7)	2.2% (1)	2.2% (1)	0.0% (0)	45
Outsourced: Data Collection	**42.1% (16)**	28.9% (11)	13.2% (5)	5.3% (2)	7.9% (3)	2.6% (1)	38
Outsourced: Data Processing	**65.8% (25)**	28.9% (11)	5.3% (2)	0.0% (0)	0.0% (0)	0.0% (0)	38
Outsourced: Data Dissemination	**81.1% (30)**	13.5% (5)	5.4% (2)	0.0% (0)	0.0% (0)	0.0% (0)	37
						answered question	**46**

Business Process Work

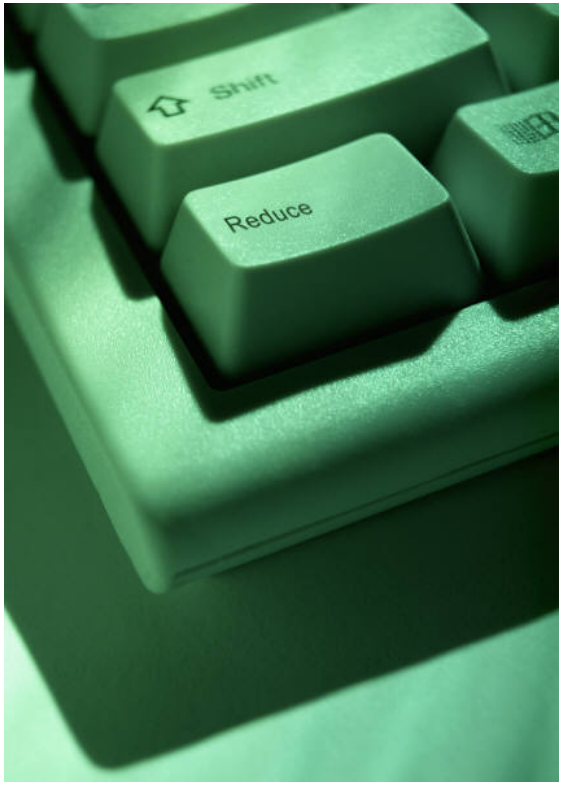
2 years (2007-2008)

- ✓ Phase 1 – Results and Recommendations Report
  - http://apps.coloradodot.info/dataaccess/traffic/Documents/FinalReport_CDOT_7.09.08_final.pdf

- ✓ Phase 2 – Results Diagram
  - http://apps.coloradodot.info/dataaccess/traffic/Documents/CDOT-BusinessProcessDiagram_6-30.pdf

Business Process Results…

Implementing an Automated/Integrated Traffic Data Warehouse Management Solution with tools for creating and managing statistics could reduce business process steps….well work the effort managing **~1.8 million** statistics each year….



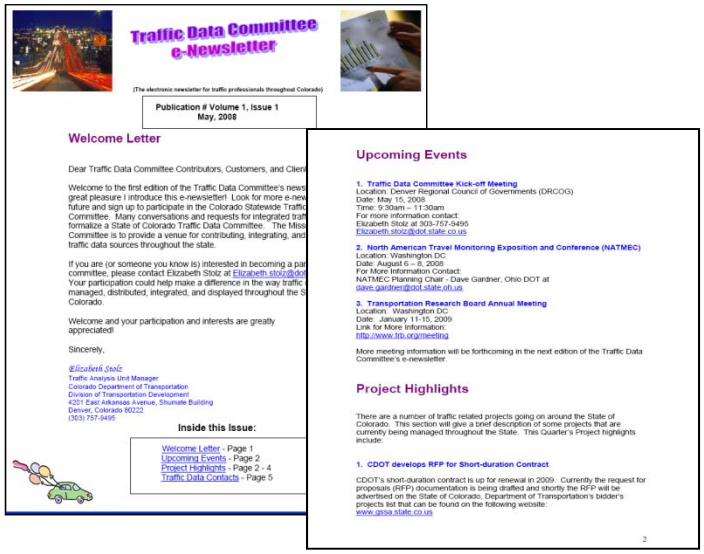
Old number of processes – 432

New ones – 114

Reduced by 318!

COLORADO's
Statewide Traffic Data Committee
Program Vision

- To Communicate, Coordinate, Schedule, Collect and Share Statewide Traffic Count Data
- To Build a Comprehensive and Integrated Statewide Traffic Database using Multiple Traffic Count Data Sources



Traffic Data Committee e-Newsletter

(The electronic newsletter for traffic professionals throughout Colorado)

Publication # Volume 1, Issue 1
May, 2008

Welcome Letter

Dear Traffic Data Committee Contributors, Customers, and Clien

Welcome to the first edition of the Traffic Data Committee's news
great pleasure I introduce this e-newsletter! Look for more e-new
future and sign up to participate in the Colorado Statewide Traffic
Committee. Many conversations and requests for integrated traff
formalize a State of Colorado Traffic Data Committee. The Miss
Committee is to provide a venue for contributing, integrating, and
traffic data sources throughout the state.

If you are (or someone you know is) interested in becoming a par
committee, please contact Elizabeth Stolz at Elizabeth.stolz@dot
Your participation could help make a difference in the way traffic
managed, distributed, integrated, and displayed throughout the S
Colorado.

Welcome and your participation and interests are greatly appreciated!

Sincerely,

Elizabeth Stolz
Traffic Analysis Unit Manager
Colorado Department of Transportation
Division of Transportation Development
4201 East Arkansas Avenue, Shumate Building
Denver, Colorado 80222
(303) 757-9495

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Upcoming Events

1. Traffic Data Committee Kick-off Meeting
Location: Denver Regional Council of Governments (DRCOG)
Date: May 15, 2008
Time: 9:30am – 11:30am
For more information contact:
Elizabeth Stolz at 303-757-9495
Elizabeth.stolz@dot.state.co.us

2. North American Travel Monitoring Exposition and Conference (NATMEC)
Location: Washington DC
Date: August 6 – 8, 2008
For More Information Contact:
NATMEC Planning Chair - Dave Gardner, Ohio DOT at
dave.gardner@dot.state.oh.us

3. Transportation Research Board Annual Meeting
Location: Washington DC
Date: January 11-15, 2009
Link for More Information:
http://www.trb.org/meeting

More meeting information will be forthcoming in the next edition of the Traffic Data Committee's e-newsletter.

Project Highlights

There are a number of traffic related projects going on around the State of Colorado. This section will give a brief description of some projects that are currently being managed throughout the State. This Quarter's Project highlights include:

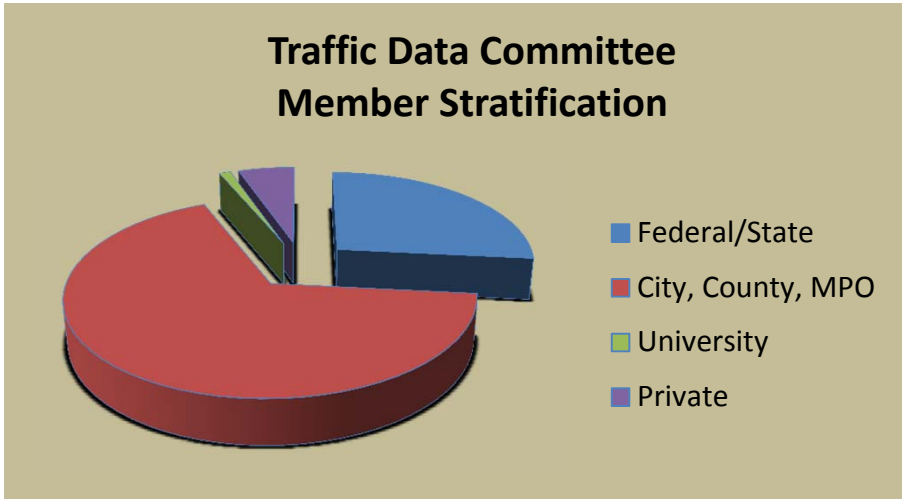
1. CDOT develops RFP for Short-duration Contract

CDOT's short-duration contract is up for renewal in 2009. Currently the request for proposals (RFP) documentation is being drafted and shortly the RFP will be advertised on the State of Colorado, Department of Transportation's bidder's projects list that can be found on the following website:
www.gssa.state.co.us

2

Key to Populating the Traffic Data Warehouse…

- **Member Participation**
- 200 Members on the Distribution List
- City, County, MPO, and Other Agency Partnerships
  - 126 City/County/MPO Agency Members
  - 50 State/Federal Agency Members
  - 2 University Members
  - 10 Private Companies



Data Sharing

- 870 Traffic Counts From Local Entities in 2008 Equals “free data”
- Equivalent to 35% of CDOT Counts Collected Per Year
- The Cost for CDOT to Collect That Same Data Would Be Approximately
  - $100/count
  - 870 counts

$87,000 IN “FREE” DATA

2008 – Agencies that Shared Data

AGENCY	TYPE	Number of Counts
City of Denver	Continuous	13
Jefferson County	Short-duration	210
E-470 Toll Authority	Continuous	5
City of Grand Junction	Short-duration	90
La Plata County	Short-duration	282
CDOT Ramp Metering and ITS	Continuous	78
Travel Time Study and Other	Short-duration	192
	TOTAL	870

2009 – Agencies that Shared Data

AGENCY	TYPE	Number of Counts
City of Colorado Springs	Short-duration	42
Weld County	Short-duration	317
E-470 Toll Authority	Continuous	5
City of Loveland	Short-duration	40
City of Arvada	Short-duration	17
City of Pueblo	Short-duration	112
Travel Time Study and Other	Short-duration	100
Larimer County	Short-duration	1,129
National Park Service	Short-duration	300
	TOTAL	2,092

Review of Data Sharing Activities

- 2008 - 870 Traffic Counts “free data”
- 2008 - Equivalent to **35%** of CDOT Counts Collected Per Year
- 2009 – 2,092 Traffic Counts “free data”
- 2009 - Equivalent to **84%** of CDOT Counts Collected Per Year
- The Cost for CDOT to Collect That Same Data Would Be Approximately
  - $100/count
  - 870 counts
  - 2092 counts

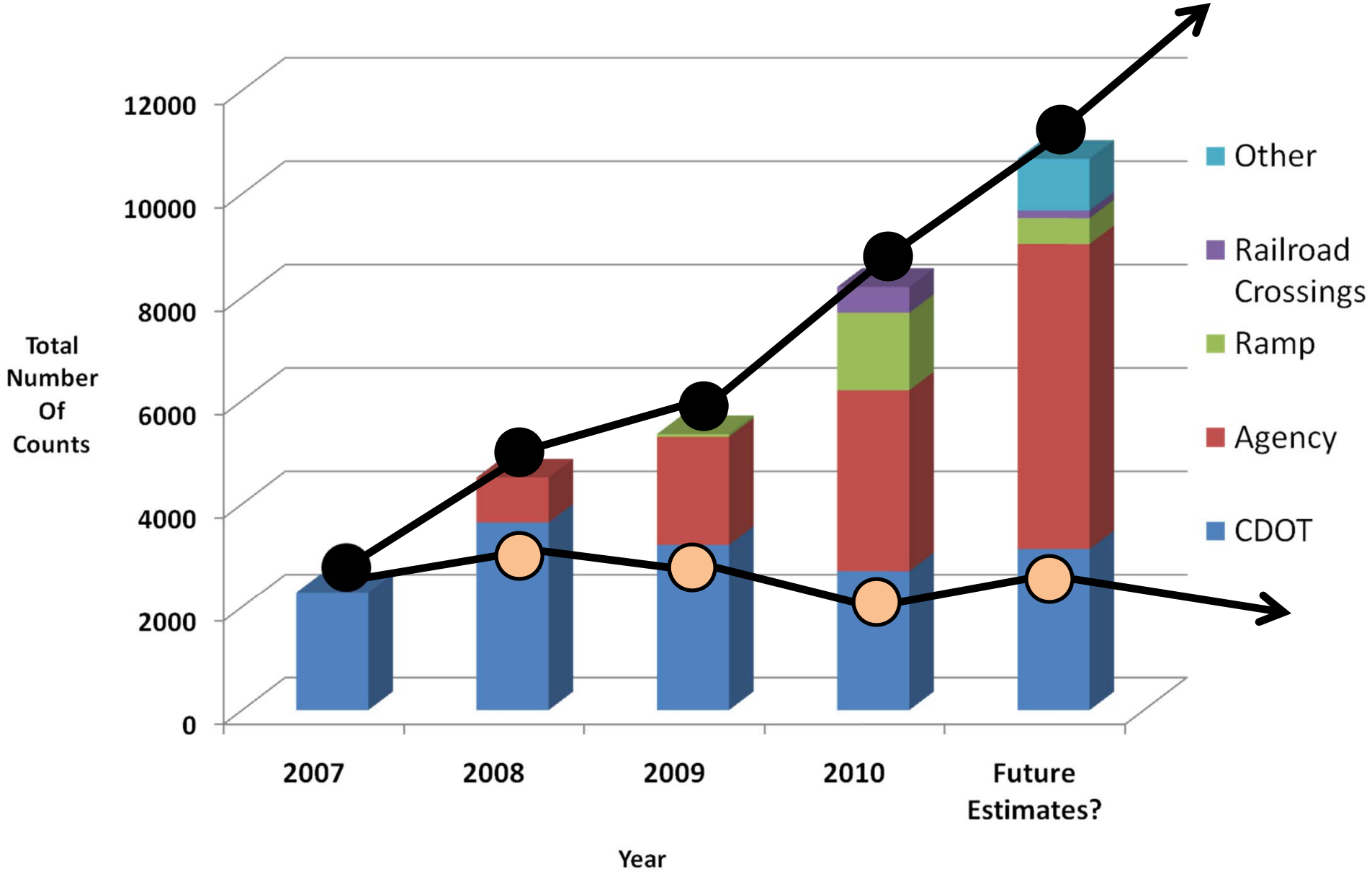
2008 - $87,000 IN “FREE” DATA

2009 - $209,200 IN “FREE” DATA

TOTAL to date: **$296,200**

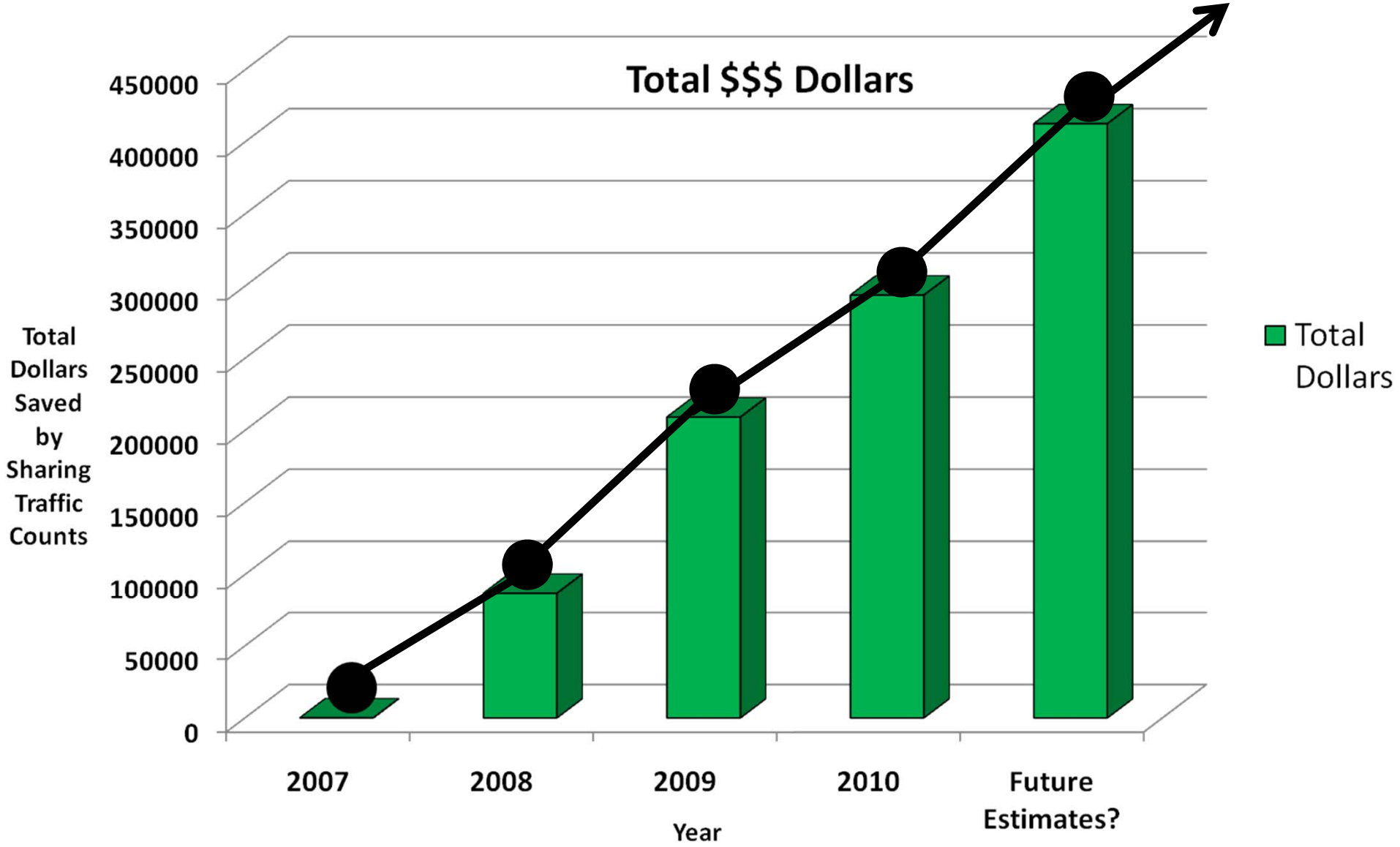
Total Short-Duration Traffic Counts

(Collected annually, and loaded into the Statewide Traffic Data Warehouse)



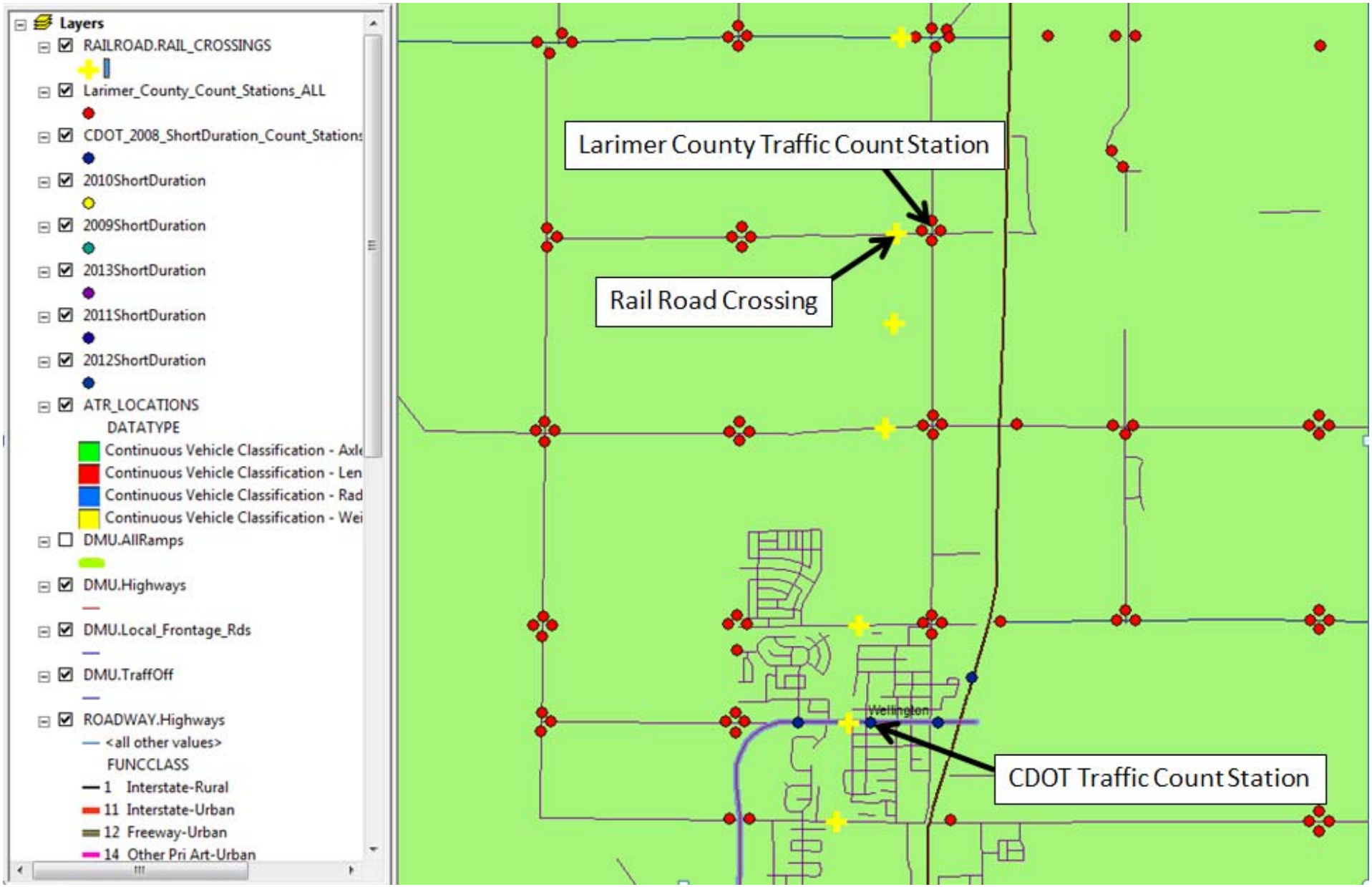
Total Return on Investment $$$ (ROI)

(this ROI was calculated by using estimates for counts CDOT would not have normally acquired)



****Almost ½ Million Dollars worth or free data by the year 2011**

Data Sharing Saves Dollars



TRADAS

- Traffic Data Analysis Software Solution
  - Manages All Raw Traffic Count Data
  - Creates and Calculates Traffic Statistics
    - Annual Average Daily Traffic (AADT's), Directional Distribution (DD's), Design Hour Volumes (DHV's)
    - Highway Performance Monitoring System (HPMS)
- Loading non-motorized data since 2009!

TRADAS Validity Checks

TRADAS performs numerous validity checks. These are summarized below. They are also available from the Validity Parameter interface by pressing F1. The parameters for the following checks can be set through the user interface.

1. **Axle Factor Threshold:** This validity parameter represents the thresholds for an axle factor created from the classification data. This axle factor is used for validity checking purposes only. The axle factor is defined as the total volume for the count divided by the total number of axles for the count based on the standard FHWA axles/vehicle class figures. Typical values for this parameter might be .38 to .48. This check is applied to volume data at the detail level. It is a high-alert-level message.
2. **Classification Thresholds:** The vehicle classification percentage for a given vehicle class must fall between the low and high values set for this parameter. It is applied to vehicle classification data at the detailed level. This is a high-alert-level message.
3. **Directional Split – Error:** This validity parameter represents the maximum allowable directional split. A value of '80' for this parameter means that a TRADAS high-alert-level will be generated if more than 80 percent of the traffic is one direction for the count. This check is applied to volume data at the detail level. It is a high-alert-level message.
4. **Directional Split – Warning:** This validity parameter represents the maximum allowable directional split for a TRADAS medium-alert-level message. A value of '60' for this parameter means that a TRADAS medium-

TRADAS Integrates Data Sources

SiteStatisticWorkshop

Details

Traffic Year: 2008
Viewing All Sites

Filter Sites

- Show all sites
- Only flagged sites
- Only sites with site stats
- Only sites with counts in year

View Options

Options

- Statistic Calculation Options

Site	Statistic Status	Flagged	AADT
000016	Copied	No	64332
000101	Copied	No	8485
000103	Copied	No	91329
000104	Copied	No	6645
000105	Averaged	Yes-Warning	19773

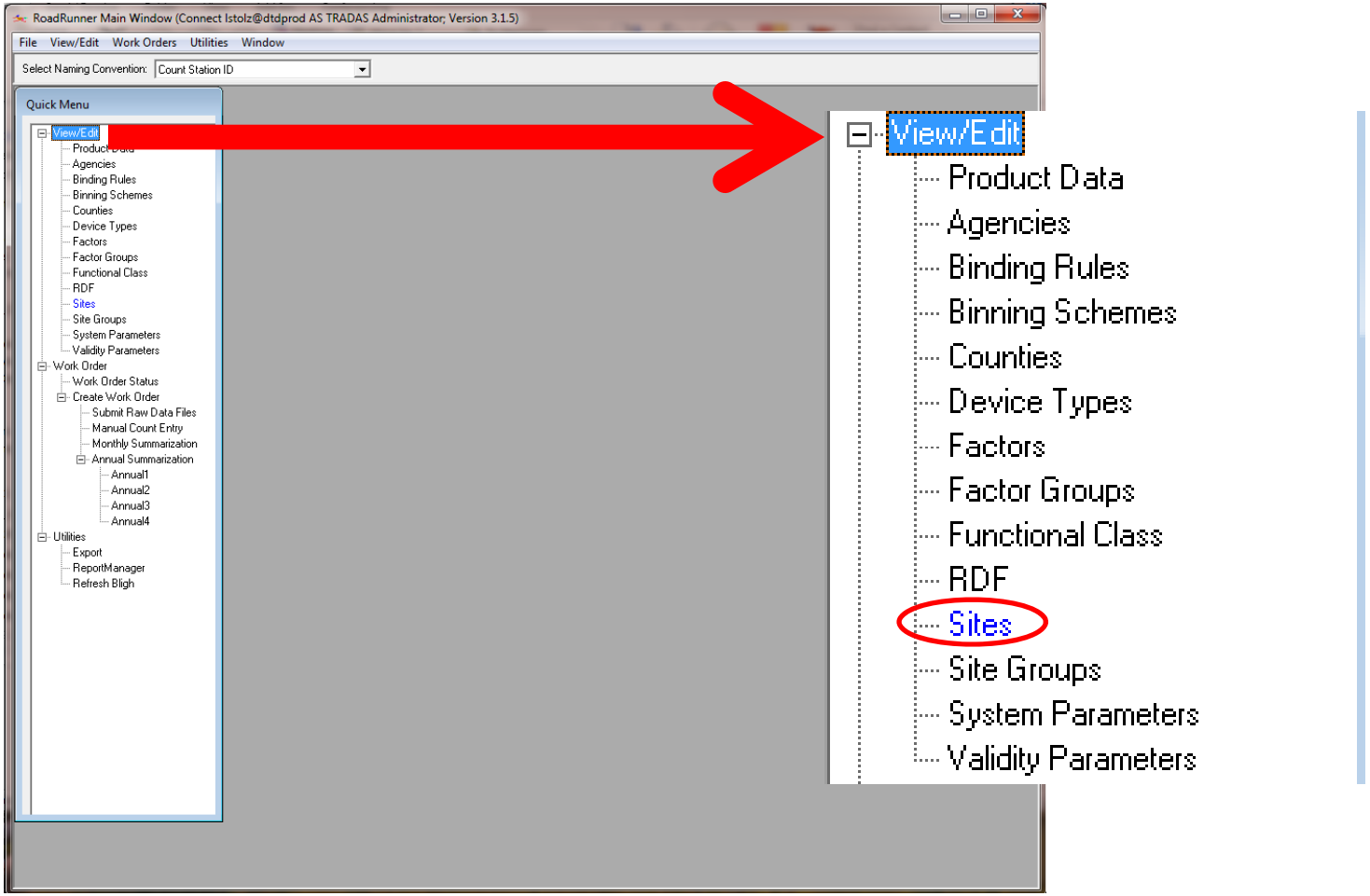
Severity	QC Message
Warning	AADT difference within current year (32.2...
Warning	AADT difference prior year (19.83422%) e...

Data Type
Volume

Count Type	Count Date	Duration	AADT
Continuous	1/1/2008	6192	17028
Short-term	8/19/2008	72	22517
Site Statistic	1/1/2008		19773

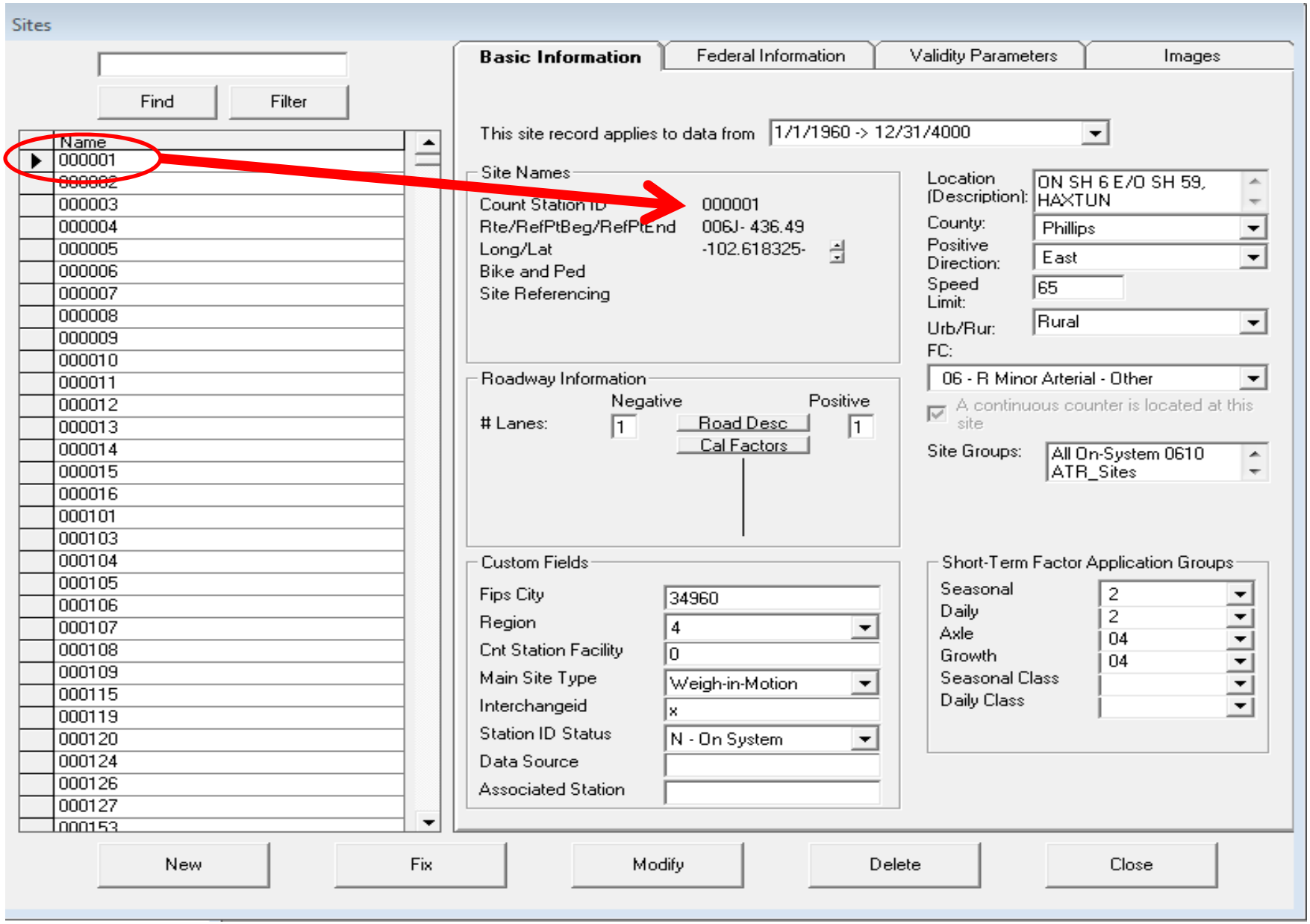
Site	Statistic Status	Flagged	AADT
000106	Copied	No	29101
000107	Plugged	No	57835
000108	Copied	No	11440
000109	Copied	No	7568
000115	Copied	No	6463
000119	Plugged	No	18914
000120	Plugged	No	42907
000124	Plugged	No	55488
000126	Averaged	No	34883
000127	Copied	No	23649
000153	Plugged	No	16984
000201	Copied	No	6120

TRADAS
Graphical User Interface (GUI)
System Overview

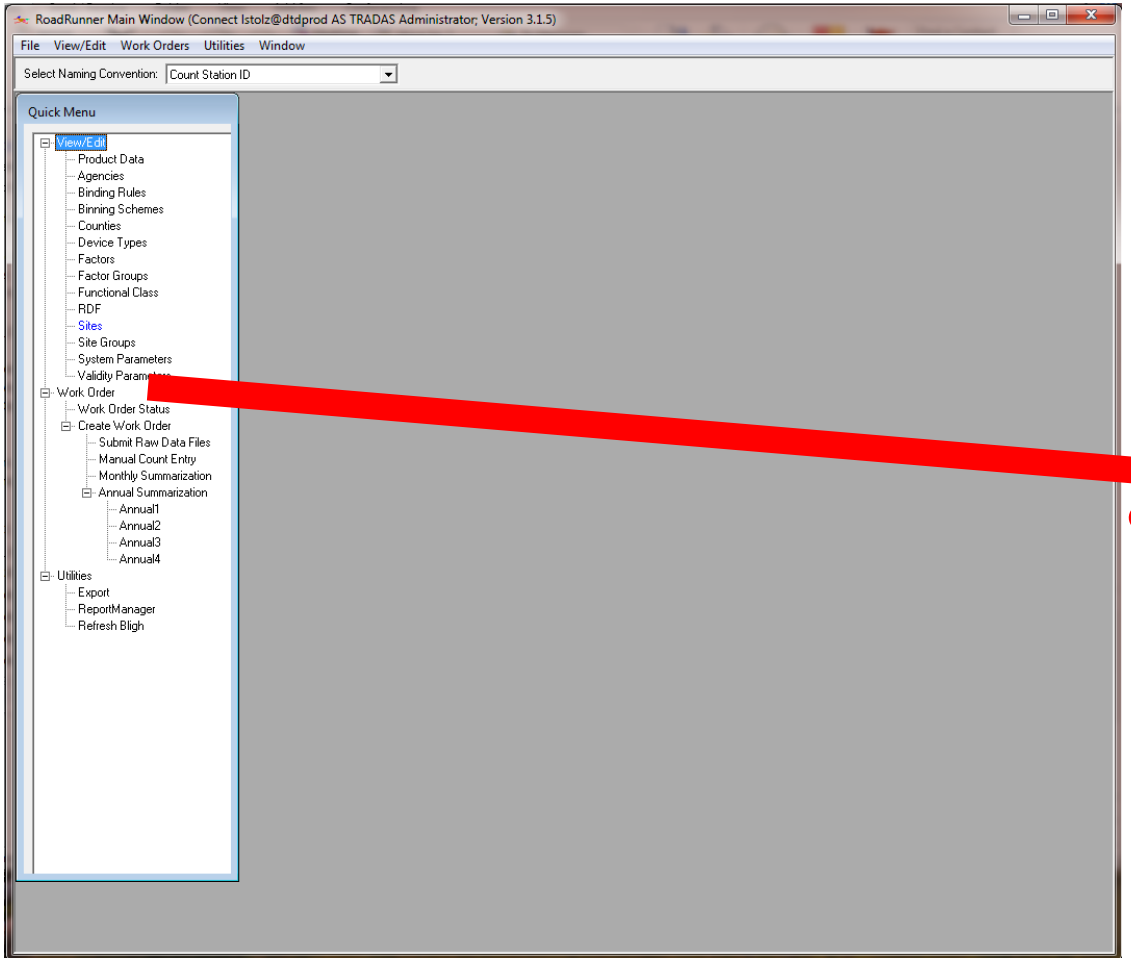


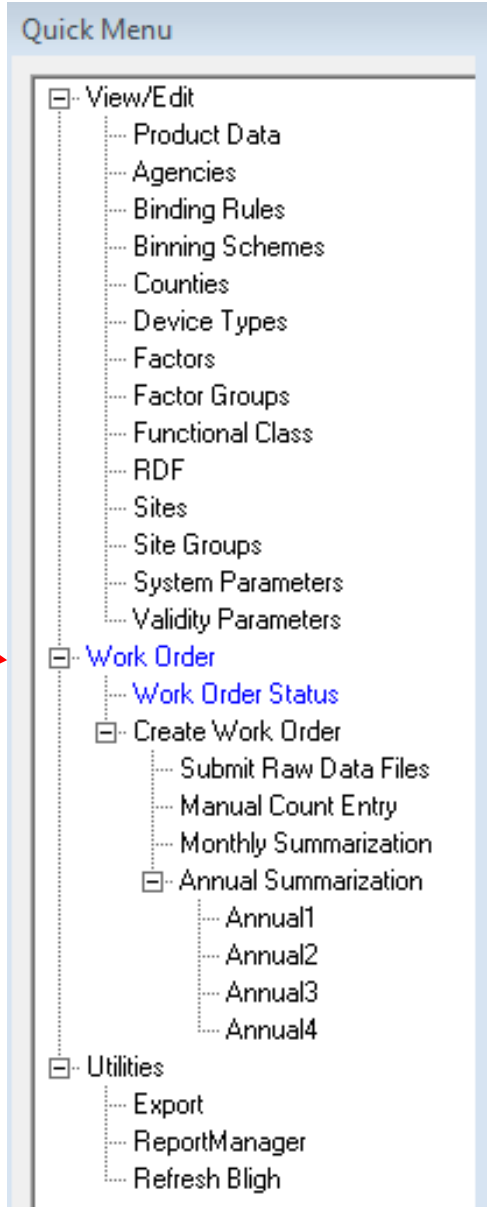
Now adding Bike/Ped Sites

SITES WINDOW

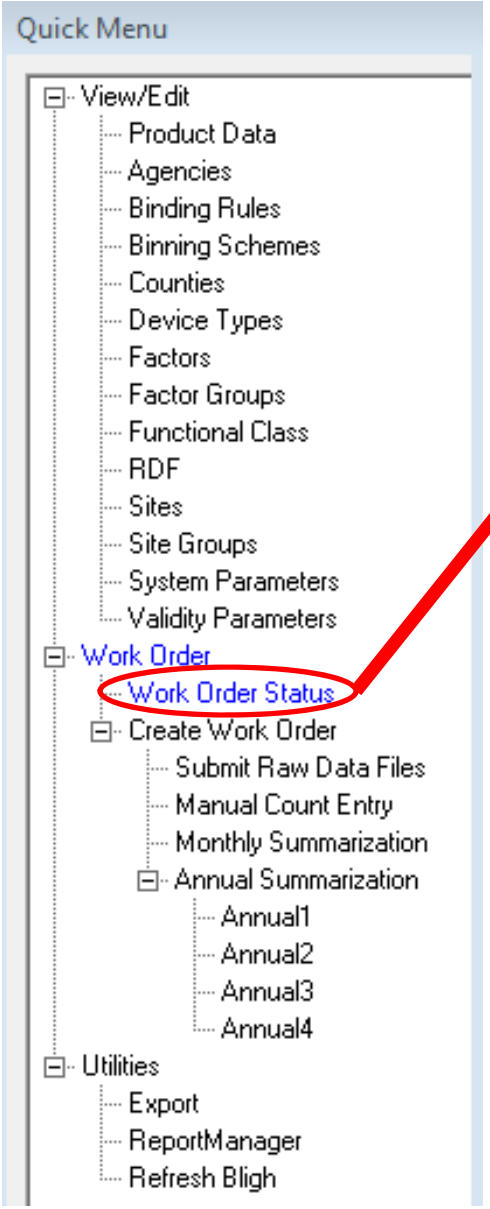


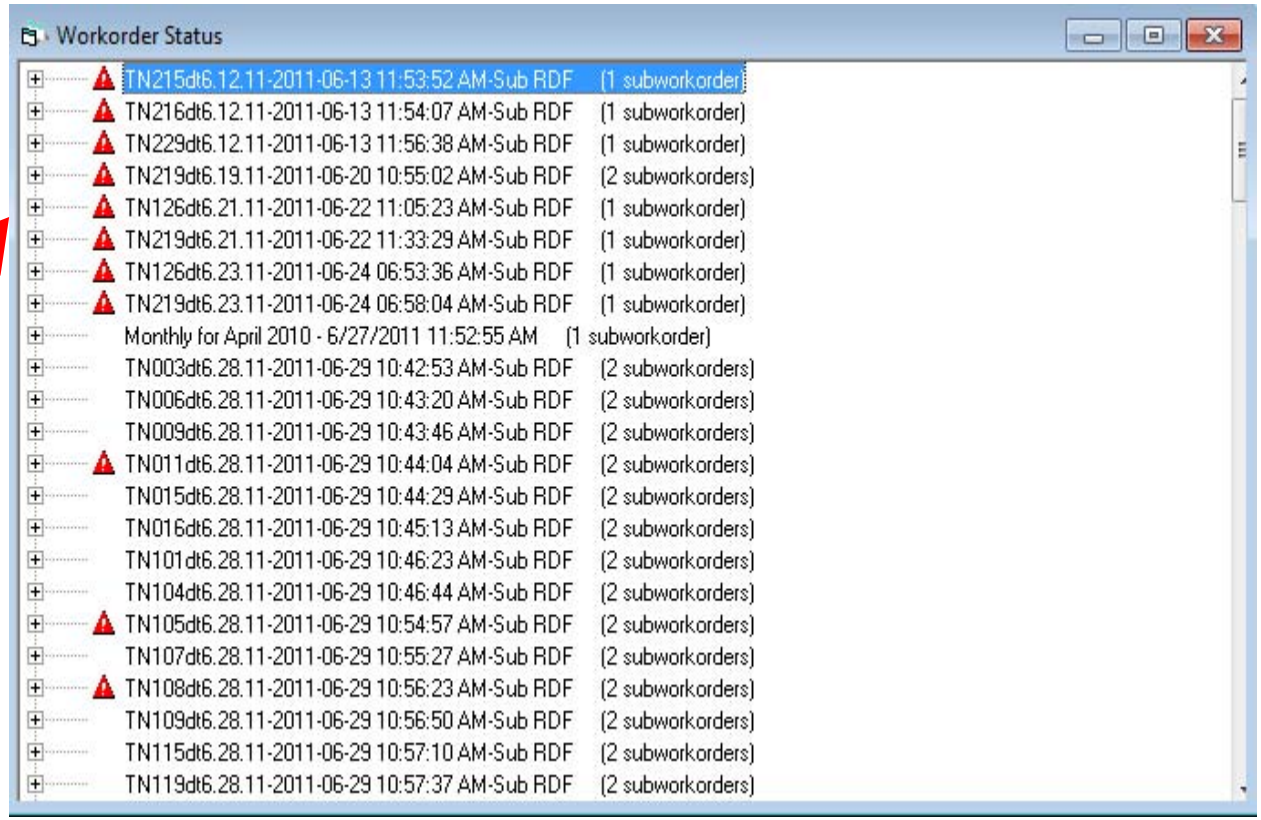
TRADAS
Graphical User Interface (GUI)
System Overview



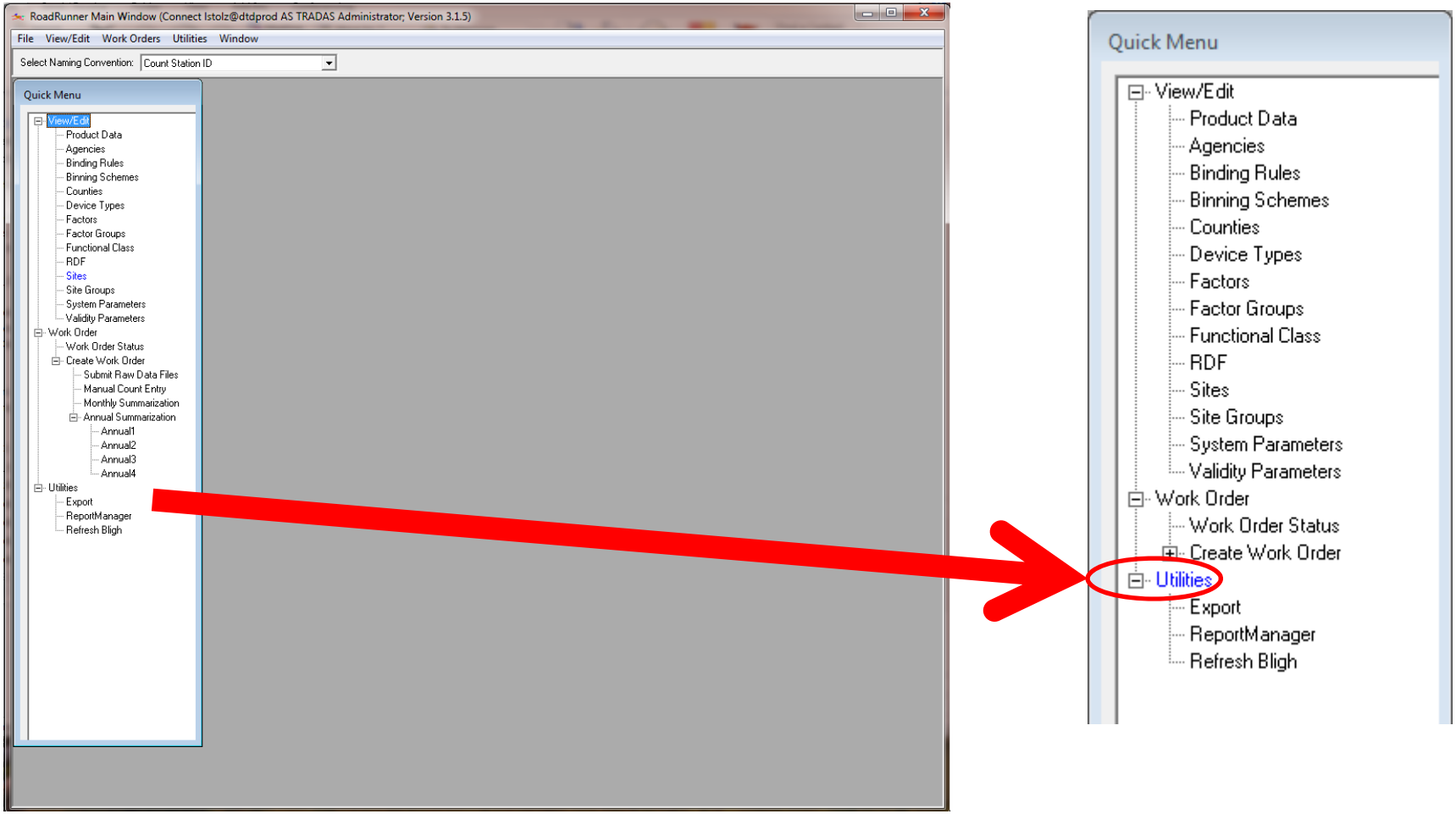


Work Order Status Window

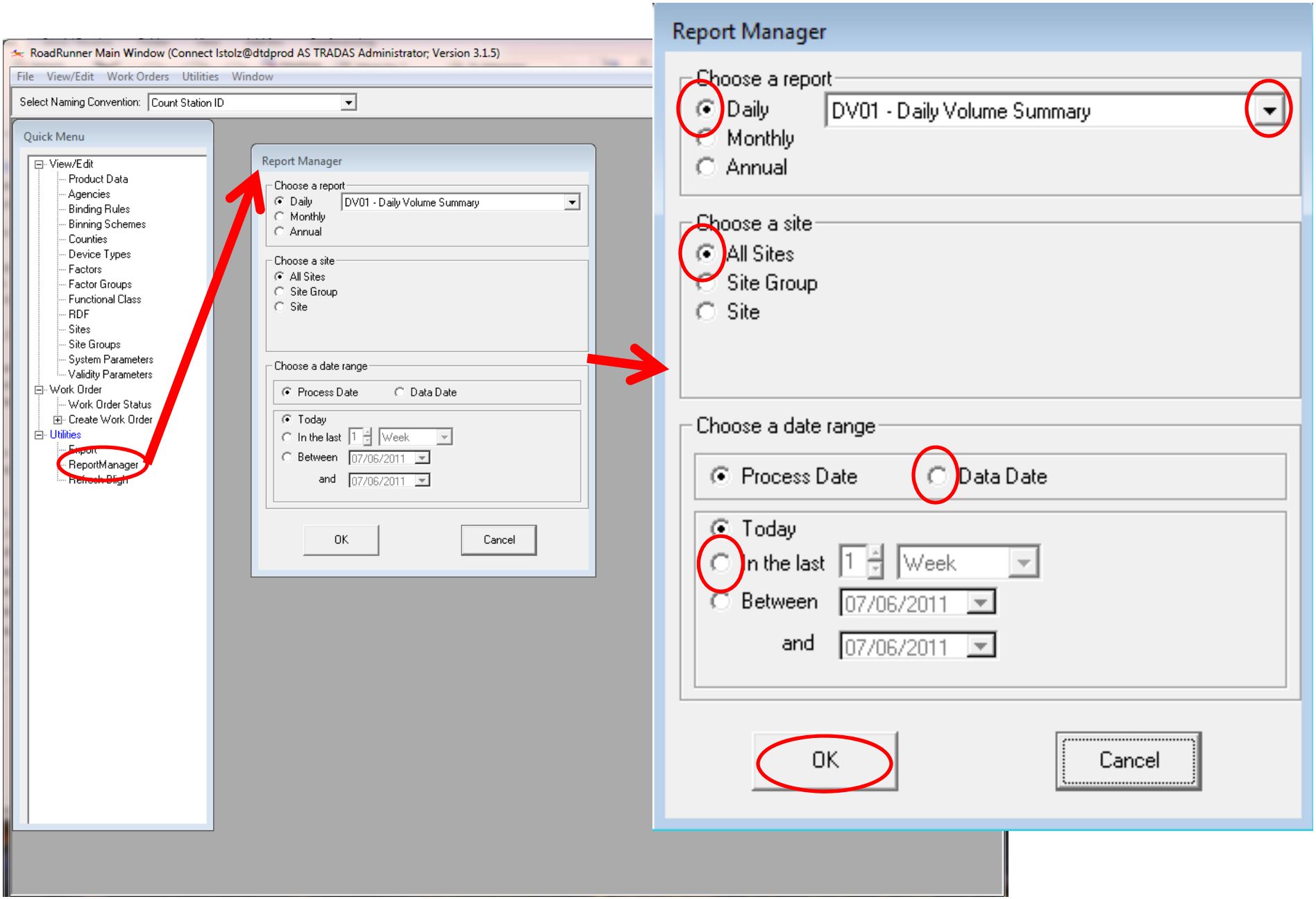




TRADAS
Graphical User Interface (GUI)
System Overview



Reporting

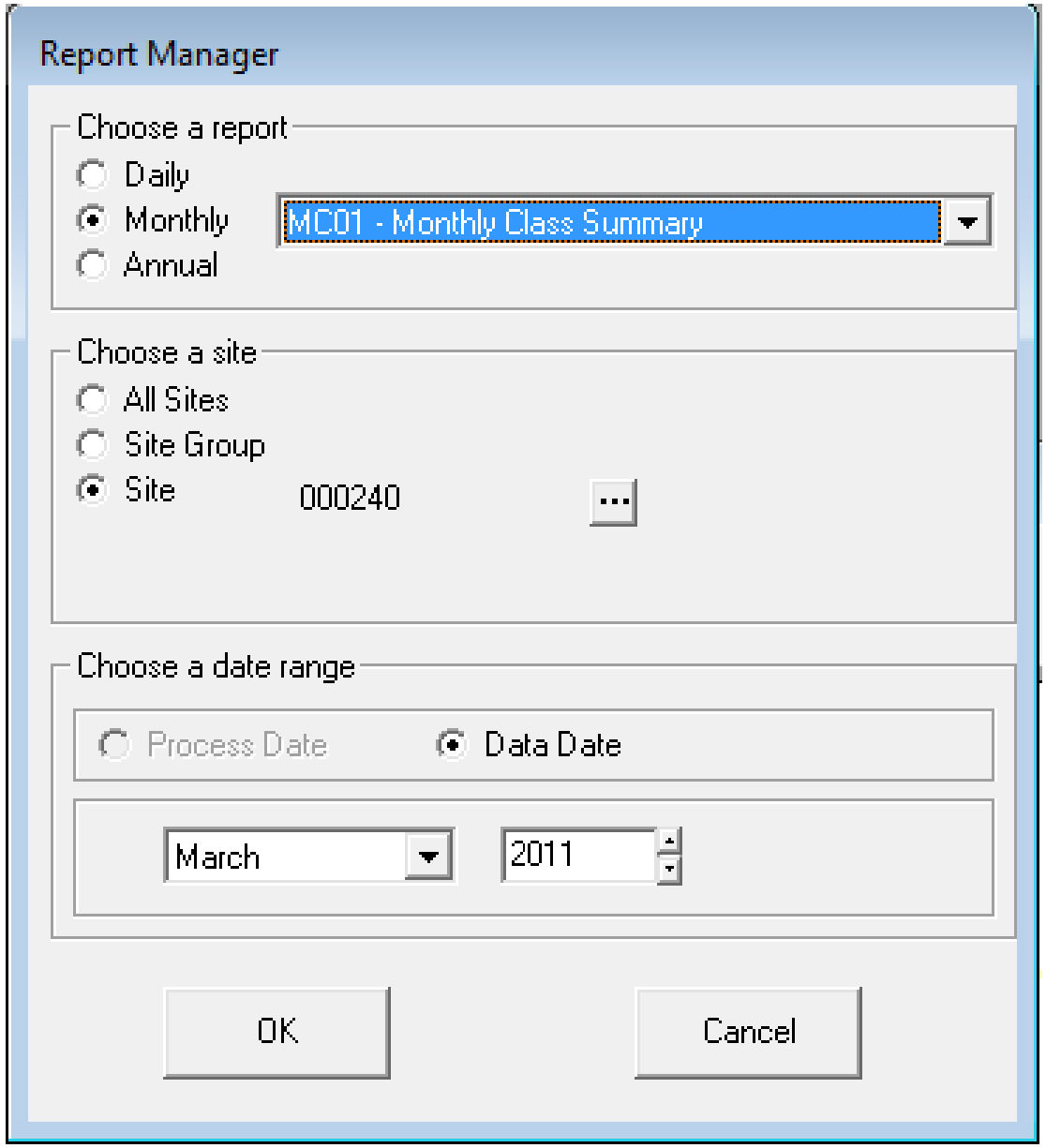

RoadRunner Main Window (Connect lstolz@dtdprod AS TRADAS Administrator; Version 3.1.5)
File View/Edit Work Orders Utilities Window
Select Naming Convention: Count Station ID
Quick Menu
View/Edit
Product Data
Agencies
Binding Rules
Binning Schemes
Counties
Device Types
Factors
Factor Groups
Functional Class
RDF
Sites
Site Groups
System Parameters
Validity Parameters
Work Order
Work Order Status
Create Work Order
Utilities
ReportManager
Report Manager
Choose a report
Daily
DV01 - Daily Volume Summary
Monthly
Annual
Choose a site
All Sites
Site Group
Site
Choose a date range
Process Date
Data Date
Today
In the last
1
Week
Between
07/06/2011
and
07/06/2011
OK
Cancel

Colorado Department of Transportation

Daily Volume Summary

			Roadway	Neg Dir	Pos Dir	Neg 1	Neg 2	Pos 2	Pos 1
000240	03/06/2011	cont.	17,988	7,142	10,846	4,471	2,671	4,281	6,565
	03/07/2011	cont.	17,766	8,067	9,699	4,850	3,217	3,616	6,083
	03/08/2011	cont.	17,733	8,603	9,130	5,307	3,296	3,231	5,899
	03/09/2011	cont.	18,172	8,162	10,010	4,586	3,576	3,979	6,031
	03/10/2011	cont.	20,803	10,481	10,322	6,276	4,205	3,932	6,390
	03/11/2011	cont.	22,756	11,668	11,088	6,932	4,736	4,253	6,835
	03/12/2011	cont.	22,572	11,474	11,098	6,945	4,529	4,303	6,795
	03/14/2011	cont.	21,756	10,789	10,967	6,422	4,367	4,229	6,738
	03/15/2011	cont.	22,213	10,626	11,587	5,925	4,701	4,486	7,101
	03/16/2011	cont.	23,660	11,692	11,968	6,953	4,739	4,550	7,418
	03/19/2011	cont.	22,603	11,404	11,199	7,063	4,341	4,347	6,852
	03/20/2011	cont.	20,049	9,652	10,397	6,056	3,596	4,061	6,336
	03/21/2011	cont.	20,737	10,174	10,563	6,249	3,925	4,071	6,492
	03/22/2011	cont.	19,617	9,677	9,940	5,982	3,695	3,906	6,034
	03/23/2011	cont.	21,009	10,413	10,596	6,560	3,853	3,928	6,668
	03/24/2011	cont.	21,447	10,766	10,681	6,729	4,037	4,009	6,672
	03/25/2011	cont.	21,549	11,059	10,490	6,820	4,239	3,900	6,590
	03/26/2011	cont.	20,639	10,385	10,254	6,713	3,672	3,724	6,530
	03/27/2011	cont.	16,327	7,647	8,680	4,952	2,695	3,374	5,306
	03/28/2011	cont.	15,102	7,144	7,958	4,517	2,627	3,592	4,366
	03/29/2011	cont.	17,756	8,259	9,497	4,747	3,512	4,176	5,321
	03/30/2011	cont.	17,488	8,047	9,441	5,003	3,044	3,308	6,133
	03/31/2011	cont.	19,028	9,503	9,525	5,729	3,774	3,373	6,152
	04/01/2011	cont.	21,477	10,900	10,577	6,833	4,067	3,966	6,611
	04/02/2011	cont.	19,883	9,965	9,918	6,282	3,683	3,748	6,170
	04/03/2011	cont.	13,377	6,827	6,550	3,700	3,127	2,846	3,704
	04/04/2011	cont.	17,406	8,476	8,930	5,537	2,939	3,422	5,508
	04/05/2011	cont.	17,414	8,859	8,555	5,637	3,222	3,139	5,416
	04/06/2011	cont.	16,804	8,364	8,440	5,463	2,901	2,941	5,499
	04/07/2011	cont.	17,243	8,686	8,557	5,527	3,159	3,024	5,533
	04/08/2011	cont.	18,724	9,738	8,986	6,152	3,586	3,233	5,753
	04/09/2011	cont.	17,221	8,719	8,502	5,843	2,876	2,932	5,570
	04/10/2011	cont.	12,708	5,423	7,285	3,647	1,776	2,605	4,680
	04/11/2011	cont.	14,222	6,689	7,533	4,234	2,455	2,570	4,963
	04/12/2011	cont.	13,888	6,836	7,052	4,452	2,384	2,226	4,826
	04/13/2011	cont.	13,600	6,727	6,873	4,353	2,374	2,165	4,708

MC01 – Monthly Class Summary

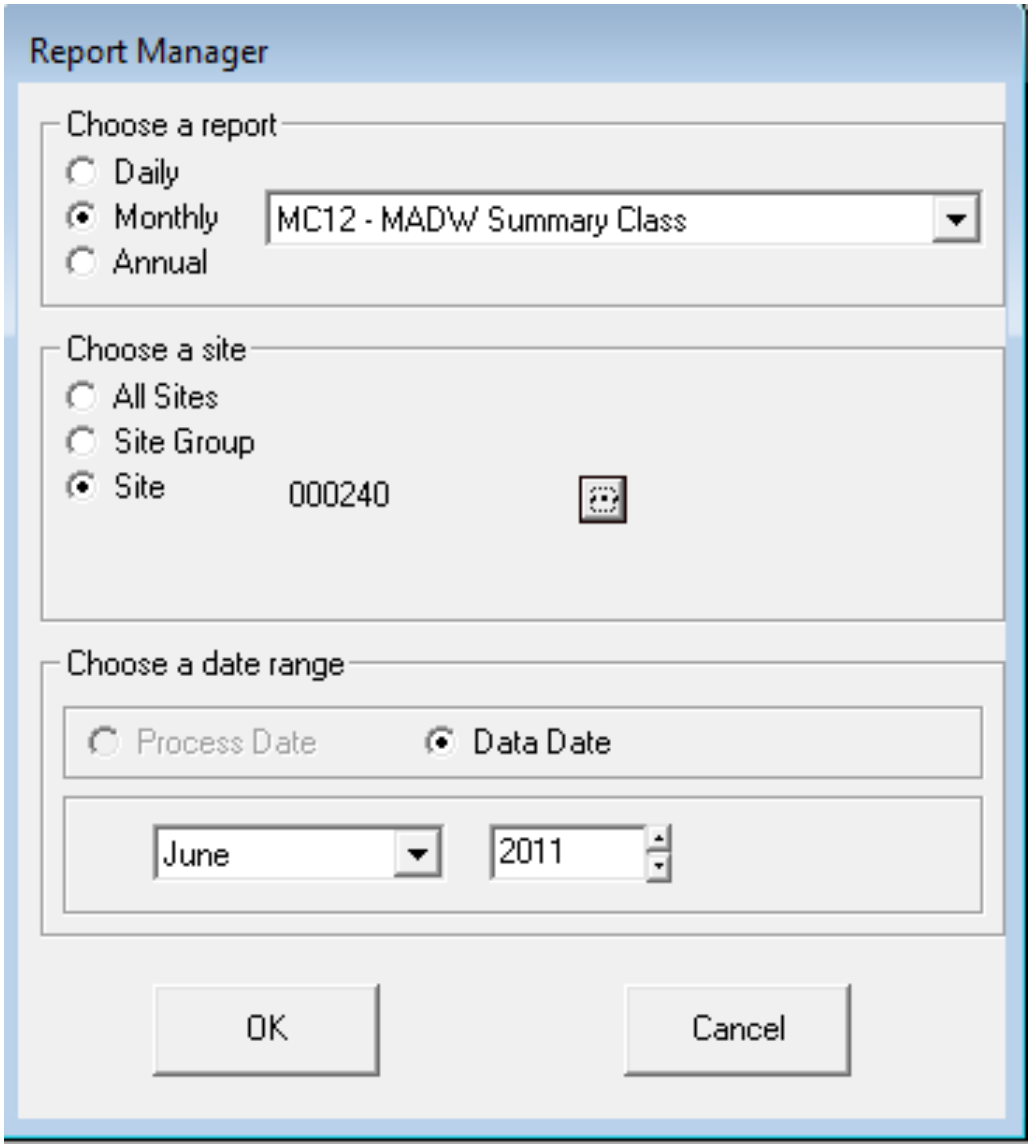


Colorado Department of Transportation
Monthly Class Distribution for March 2011

Site Names: 000240, 009C- 089.064- 090.254, -106.043699-39.531473
County: Summit
Funct. Class: 02 - R Principal Arterial - Other
Location: ON SH 9 S/O TIGER RD, BRECKENRIDGE

	Roadway	S DIR	N DIR	S 1	S 2	N 2	N 1
MC	6	4	2	3	0	1	2
CAR	17,525	8,871	8,654	5,828	3,043	3,780	4,874
PU	2,215	775	1,440	17	758	151	1,289
BUS	11	4	7	3	1	1	6
2D	140	47	93	31	15	10	83
SU 3	43	17	26	14	4	3	23
SU 4+	0	0	0	0	0	0	0
ST 4-	18	8	10	5	3	2	8
ST 5	32	9	23	6	2	2	21
ST 6+	1	0	0	0	0	0	0
MT 5-	1	0	1	0	0	0	1
MT 6	0	0	0	0	0	0	0
MT 7+	1	0	1	0	0	0	1
Trucks	236	81	155	57	24	16	138
Combo Trucks	52	17	35	12	5	4	32
Classified	19,993	9,735	10,258	5,909	3,826	3,949	6,309
Num Days	7	7	7	7	7	7	7
Total	19,993	9,735	10,258	5,909	3,826	3,949	6,309

MC12 - Monthly Class Report



Colorado Department of Transportation

Monthly Average Day of Week Summarized Class Distribution March 2011

Site Names: 000240, 009C- 089.064- 090.254, -106.043699-39.531473

County: Summit

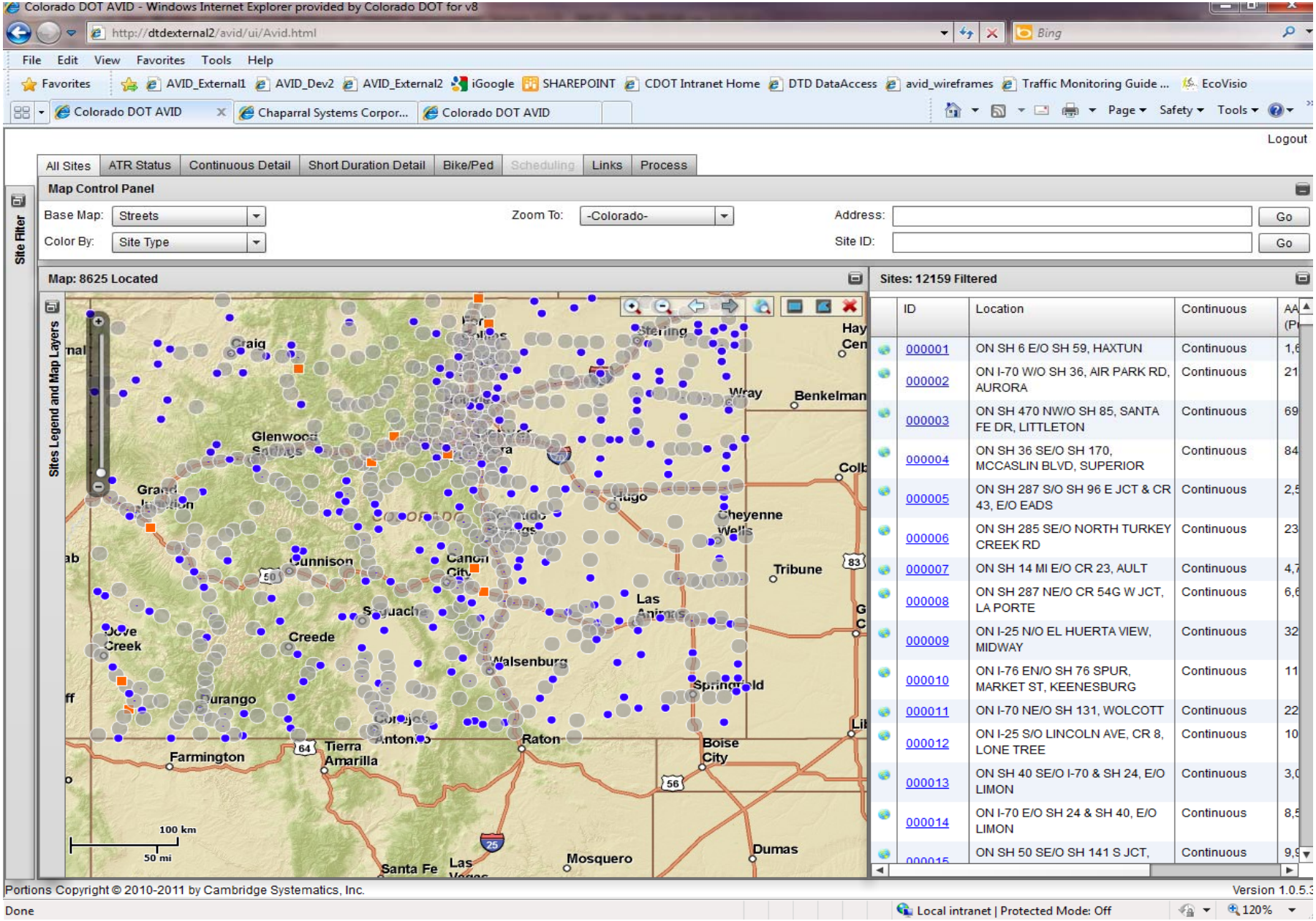
Funct Class: 02 - R Principal Arterial - Other

Axle 03

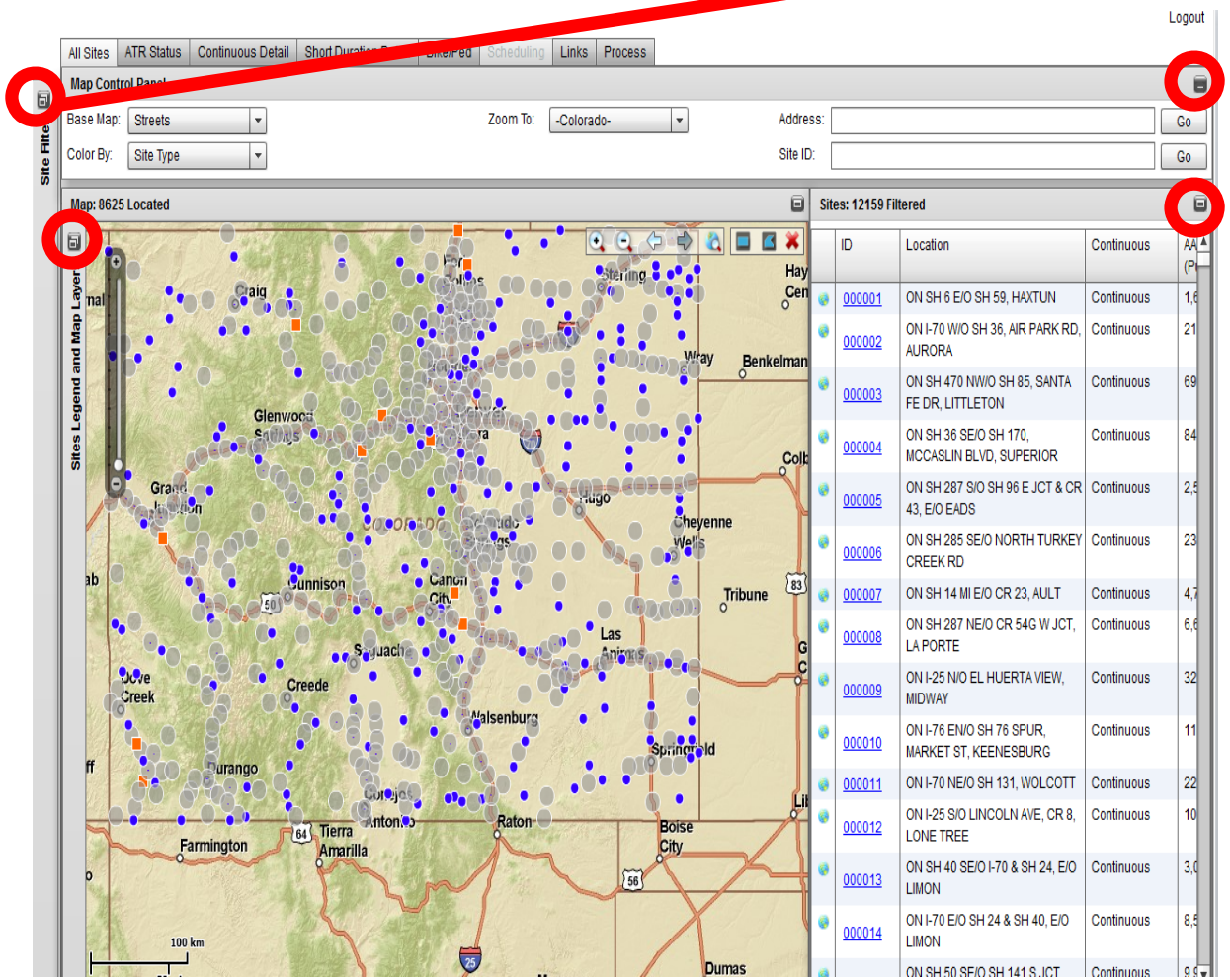
Location: ON SH 9 S/O TIGER RD, BRECKENRIDGE

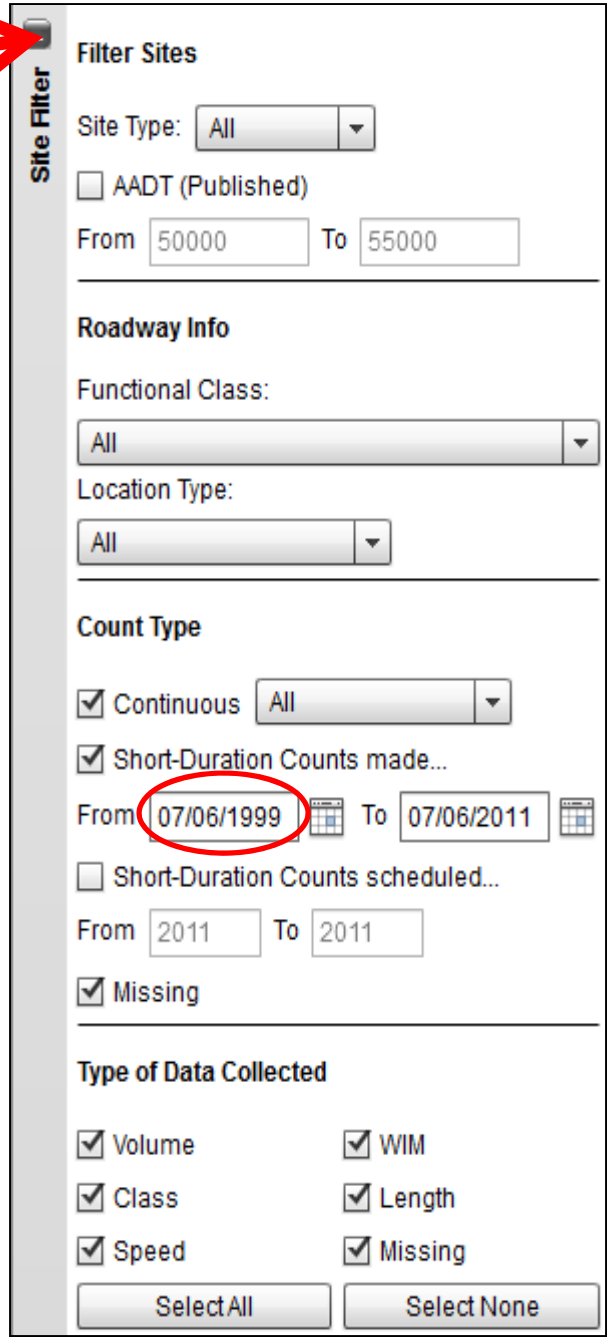
	Sunday		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday	
	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos
PC/PU	8117	9899	8950	9613	9187	9777	9483	10164	9983	9807	10871	10489	10958	10924
SU	24	61	73	139	82	159	73	144	99	159	77	149	47	76
COMB	6	14	20	45	19	40	16	40	24	45	25	48	9	16

AVID


Colorado DOT AVID - Windows Internet Explorer provided by Colorado DOT for v8
http://dtdexternal2/avid/ui/Avid.html
File Edit View Favorites Tools Help
Favorites AVID_External1 AVID_Dev2 AVID_External2 iGoogle SHAREPOINT CDOT Intranet Home DTD DataAccess avid_wireframes Traffic Monitoring Guide ... EcoVisio
Colorado DOT AVID
Chaparral Systems Corpor...
Colorado DOT AVID
Page Safety Tools
Logout
All Sites
ATR Status
Continuous Detail
Short Duration Detail
Bike/Ped
Scheduling
Links
Process
Site Filter
Map Control Panel
Base Map: Streets
Color By: Site Type
Zoom To: -Colorado-
Address:
Site ID:
Go
Map: 8625 Located
Sites Legend and Map Layers
Craig
Glenwood Springs
Grand Junction
Gunnison
Cañon City
Sterling
Wray
Benkelman
Hugo
Cheyenne Wells
Tribune
Las Animas
Dove Creek
Creede
Walsenburg
Durango
Springfield
Farmington
Tierra Amarilla
Raton
Boise City
Santa Fe
Las Vegas
Mosquero
Dumas
100 km
50 mi
Sites: 12159 Filtered
ID
Location
Continuous
000001 ON SH 6 E/O SH 59, HAXTUN Continuous
000002 ON I-70 W/O SH 36, AIR PARK RD, AURORA Continuous
000003 ON SH 470 NW/O SH 85, SANTA FE DR, LITTLETON Continuous
000004 ON SH 36 SE/O SH 170, MCCASLIN BLVD, SUPERIOR Continuous
000005 ON SH 287 S/O SH 96 E JCT & CR 43, E/O EADS Continuous
000006 ON SH 285 SE/O NORTH TURKEY CREEK RD Continuous
000007 ON SH 14 MI E/O CR 23, AULT Continuous
000008 ON SH 287 NE/O CR 54G W JCT, LA PORTE Continuous
000009 ON I-25 N/O EL HUERTA VIEW, MIDWAY Continuous
000010 ON I-76 EN/O SH 76 SPUR, MARKET ST, KEENESBURG Continuous
000011 ON I-70 NE/O SH 131, WOLCOTT Continuous
000012 ON I-25 S/O LINCOLN AVE, CR 8, LONE TREE Continuous
000013 ON SH 40 SE/O I-70 & SH 24, E/O LIMON Continuous
000014 ON I-70 E/O SH 24 & SH 40, E/O LIMON Continuous
ON SH 50 SE/O SH 141 S JCT, Continuous
Portions Copyright © 2010-2011 by Cambridge Systematics, Inc.
Version 1.0.5.3
Done
Local intranet | Protected Mode: Off
120%

AVID PANELS


Logout
All Sites
ATR Status
Continuous Detail
Scheduling
Links
Process
Map Control Panel
Base Map: Streets
Zoom To: -Colorado-
Address:
Go
Color By: Site Type
Site ID:
Go
Site Filter
Map: 8625 Located
Sites Legend and Map Layer
Sites: 12159 Filtered
ID
Location
Continuous
000001 ON SH 6 E/O SH 59, HAXTUN Continuous
000002 ON I-70 W/O SH 36, AIR PARK RD, AURORA Continuous
000003 ON SH 470 NW/O SH 85, SANTA FE DR, LITTLETON Continuous
000004 ON SH 36 SE/O SH 170, MCCASLIN BLVD, SUPERIOR Continuous
000005 ON SH 287 S/O SH 96 E JCT & CR 43, E/O EADS Continuous
000006 ON SH 285 SE/O NORTH TURKEY CREEK RD Continuous
000007 ON SH 14 MI E/O CR 23, AULT Continuous
000008 ON SH 287 NE/O CR 54G W JCT, LA PORTE Continuous
000009 ON I-25 N/O EL HUERTA VIEW, MIDWAY Continuous
000010 ON I-76 EN/O SH 76 SPUR, MARKET ST, KEENESBURG Continuous
000011 ON I-70 NE/O SH 131, WOLCOTT Continuous
000012 ON I-25 S/O LINCOLN AVE, CR 8, LONE TREE Continuous
000013 ON SH 40 SE/O I-70 & SH 24, E/O LIMON Continuous
000014 ON I-70 E/O SH 24 & SH 40, E/O LIMON Continuous
Craig
Glenwood Springs
Gunnison
Creede
Durango
Farmington
Tierra Amarilla
Raton
Walsenburg
Las Animas
Springfield
Boise City
Dumas
Tribune
Cheyenne Wells
Hugo
Benkelman
Wray
Sterling
100 km


Site Filter
Filter Sites
Site Type: All
AADT (Published)
From 50000 To 55000
Roadway Info
Functional Class:
All
Location Type:
All
Count Type
Continuous All
Short-Duration Counts made...
From 07/06/1999 To 07/06/2011
Short-Duration Counts scheduled...
From 2011 To 2011
Missing
Type of Data Collected
Volume
WIM
Class
Length
Speed
Missing
Select All
Select None

AVID Modules

Logout

All Sites | ATR Status | Continuous Detail | Short Duration Detail | Bike/Ped | Scheduling | Links | Process

Site Filter

ATR Status Control Panel

Effective Date 07/06/2011

ATR Locations Status Board: 3 Offline 9 Partially Working

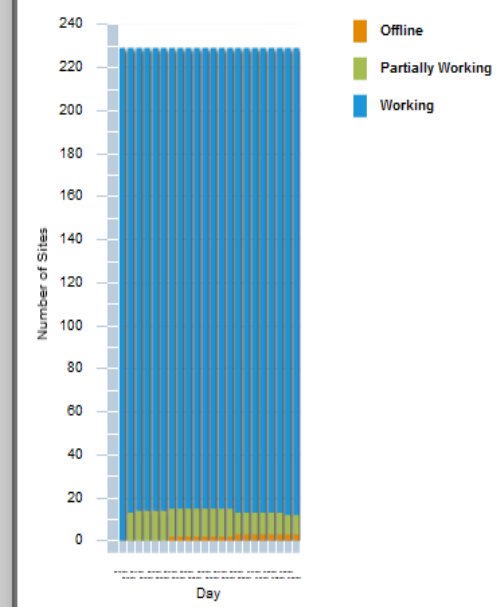
Site ID	Location	Status	Effective Date	Explanation
000001	ON SH 6 E/O SH 59, HAXTUN	●	06/15/11	
000002	ON I-70 W/O SH 36, AIR PARK RD, AURORA	●	06/15/11	
000003	ON SH 470 NW/O SH 85, SANTA FE DR, LITTLETON	●	06/15/11	
000004	ON SH 36 SE/O SH 170, MCCASLIN BLVD, SUPERIOR	●	06/21/11	Lane 1 & 3 are out
000005	ON SH 287 S/O SH 96 E JCT & CR 43, E/O EADS	●	06/15/11	
000006	ON SH 285 SE/O NORTH TURKEY CREEK RD	●	06/15/11	
000007	ON SH 14 MI E/O CR 23, AULT	●	06/15/11	
000008	ON SH 287 NE/O CR 54G W JCT, LA PORTE	●	06/15/11	
000009	ON I-25 N/O EL HUERTA VIEW, MIDWAY	●●	06/29/11	Piezo 3 is bad
000010	ON I-76 EN/O SH 76 SPUR, MARKET ST, KEENESBURG	●	06/15/11	
000011	ON I-70 NE/O SH 131, WOLCOTT	●●	06/16/11	Bad Piezo
000012	ON I-25 S/O LINCOLN AVE, CR 8, LONE TREE	●	06/15/11	
000013	ON SH 40 SE/O I-70 & SH 24, E/O LIMON	●	06/15/11	
000014	ON I-70 E/O SH 24 & SH 40, E/O LIMON	●	06/15/11	
000015	ON SH 50 SE/O SH 141 S JCT, WHITEWATER	●	06/15/11	
000016	ON I-25 S/O SH 34, LOVELAND	●	06/15/11	
000101	ON I-25 S/O SANTA FE TRAIL, STARKVILLE INTERCHANGE	●	06/15/11	
000103	ON I-25 N/O SH 7, BASELINE RD, BROOMFIELD	●	06/15/11	
000104	ON I-70 W/O SH 6, MACK	●	06/15/11	
000105	ON I-70 E/O SH 82, GLENWOOD SPRINGS	●	06/29/11	No data due to summer project
000106	ON I-70 NE/O SH 9, BLUE RIVER PKWY, AT EISENHOWER TUNNEL	●	06/29/11	

ATR Status Detail: No Site Selected

New

Date	Status	Explanation

ATR Availability



Click on ATR to get Status History

All Sites | ATR Status | Continuous Detail | Short Duration Detail | Bike/Ped | Scheduling | Links | Process

Site Filter

ATR Status Control Panel

Effective Date 07/06/2011

ATR Locations Status Board: 3 Offline 9 Partially Working

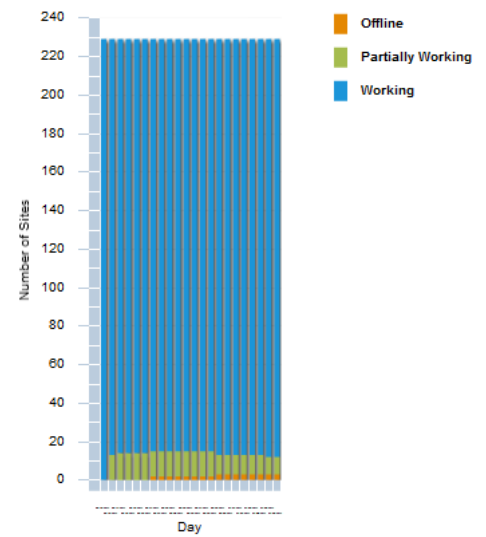
Site ID	Location	Status	Effective Date	Explanation
000013	ON SH 40 SE/O I-70 & SH 24, E/O LIMON	●	06/15/11	
000014	ON I-70 E/O SH 24 & SH 40, E/O LIMON	●	06/15/11	
000015	ON SH 50 SE/O SH 141 S JCT, WHITEWATER	●	06/15/11	
000016	ON I-25 S/O SH 34, LOVELAND	●	06/15/11	
000101	ON I-25 S/O SANTA FE TRAIL, STARKVILLE INTERCHANGE	●	06/15/11	
000103	ON I-25 N/O SH 7, BASELINE RD, BROOMFIELD	●	06/15/11	
000104	ON I-70 W/O SH 6, MACK	●	06/15/11	
000105	ON I-70 E/O SH 82, GLENWOOD SPRINGS	●	06/29/11	No data due to summer project
000106	ON I-70 NE/O SH 9, BLUE RIVER PKWY, AT EISENHOWER TUNNEL	●	06/29/11	
000107	ON I-70 E/O MT VERNON COUNTRY CLUB RD, GENESEE	●	06/15/11	
000108	ON I-70 W/O SH 36, BYERS	●	06/15/11	
000109	ON I-70 NE/O SH 70 BURLINGTON SPUR		06/15/11	
000115	ON I-76 NE/O SH 6, STERLING	●	06/15/11	
000119	ON I-70 W/O SH 91, COPPER MOUNTAIN		06/15/11	
000120	ON I-70 E/O SH 70 BUS RT, COLORADO BLVD AT IDAHO SPRINGS TWIN TUNNELS	●	06/15/11	
000124	ON I-25 S/O PLUM CREEK PKWY, CASTLE ROCK	●	06/15/11	
000126	ON I-70 W/O CHAONIX RD, WEST VAIL	●	06/15/11	
000127	ON I-25 N/O MOUNTAIN VISTA INTERCHANGE, FORT COLLINS		06/16/11	Piezo bad in lane 3
000201	ON SH 9, BLUE RIVER PKWY N/O HAMILTON CREEK RD, CR 1900, SILVERTHORNE		06/16/11	Lane 3 Piezo is bad
000202	ON SH 10 E/O I-25, E/O WALSENBURG	●	06/15/11	

ATR Status Detail: No Site Selected

New

Date	Status	Explanation
06/21/11	●	Lane 1 & 3 are out
06/16/11	●●	Loop 3 is Out
06/15/11	●	

ATR Availability



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Continuous Detail Module

All Sites | ATR Status | Continuous Detail | Short Duration Detail | Bike/Ped | Scheduling | Links | Process

Site #000001, ON SH 6 E/O SH 59, HAXTUN, 006J - 436.496/444.756

Site 1 of 229 Time Period Annual Go Search

Site Filter

Annual

Year	Published AADT	Actual AADT	Method	% Change
2010	1,600	1,607	Actual	2.4
2009	1,600	1,570	Actual	3.8
2008	1,500	1,512	Plugged	-5.5
2007	1,600	1,600	Actual	6.7
2006	1,500	1,500	Actual	0

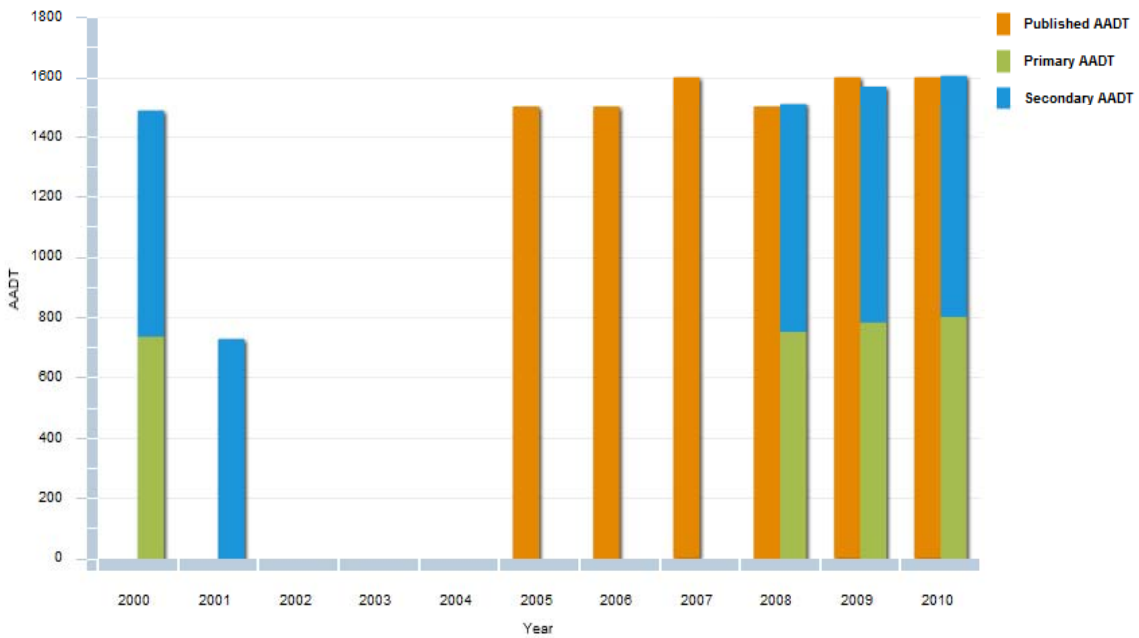
Status

Date	Status	Explanation
06/15/11	●	

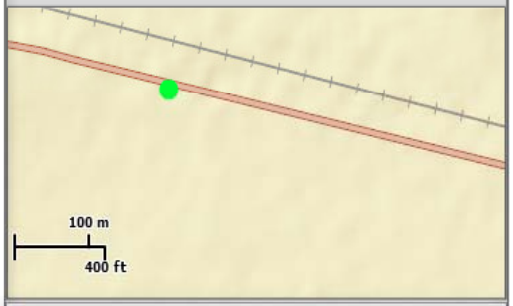
Details

Lon	-102.618325
Lat	40.637259
City Fips	34960
City	HAXTUN
County Fips	95
County	Phillips
Region	4
Phone Co	Haxtun Telephone

Chart



Location



Documents

Add Delete

Date	Name	Description

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Done Local intranet | Protected Mode: Off 120%

Where do we go from here?

Travel Monitoring Program Conclusions

- Must supply data with a populated database
- Must allow multiple data sources
- Acquire more funding

Contact Information

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