



**Safer roads and communities
through real-time signal optimization**



InSync is protected by U.S. Patent Nos. 8,050,854 and 8,103,436, and other patents-pending.



< **Injuries**



< **Fatalities**



**< Cost
of crashes**



Intersection-related crashes
are an urgent crisis

Every minute = 5 crashes

Every hour = 1 fatality



Crash reduction results

24%

Source: Topeka, KS
City Traffic Engineer

17%

Source: Lee's Summit, MO
Police Department

30%

Source: Springdale, AR
Police Department

26%

Source: Columbia County, GA
County Traffic Engineer



**Empower communities
with innovative and affordable traffic
solutions to save time and money,
save the environment and save lives.**



In|Sync[®]



Understand
how it works

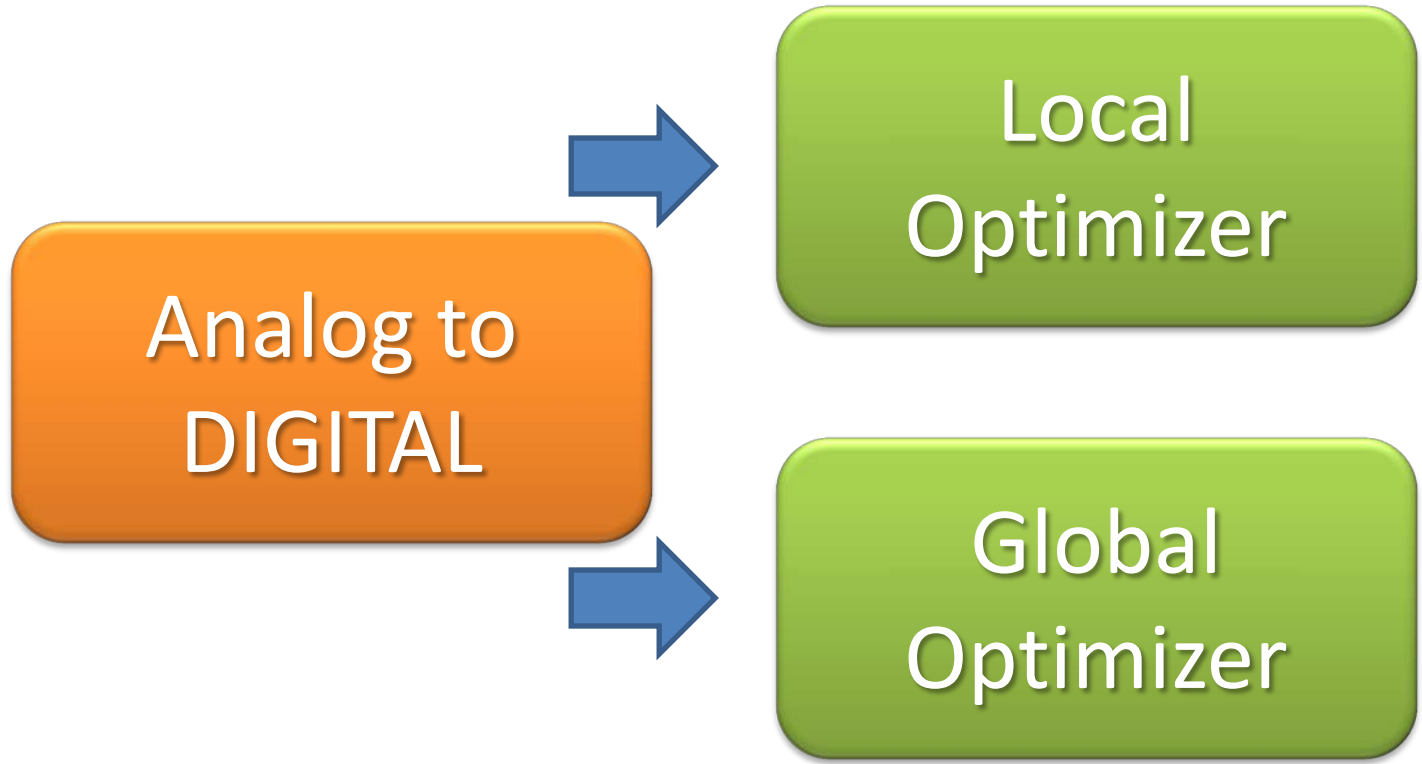


Safety and
operational results



See the financial
investment

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State machine

InSync is protected by U.S. Patent Nos. 8,050,854 ; 8,103,436; 8,253,592 and other patents-pending.

Intersection:

RT 29_Cedar Run

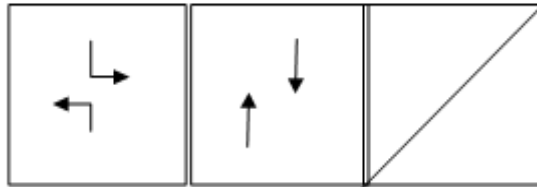
Camera:

South Bound

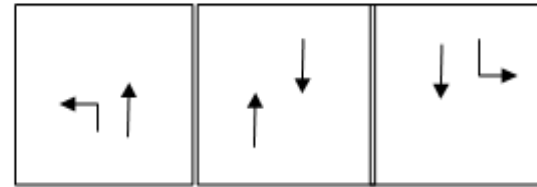


version 1.33

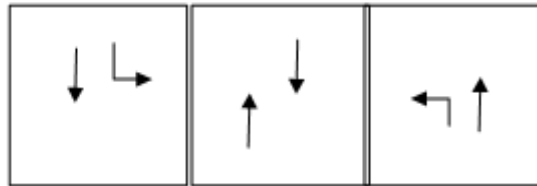




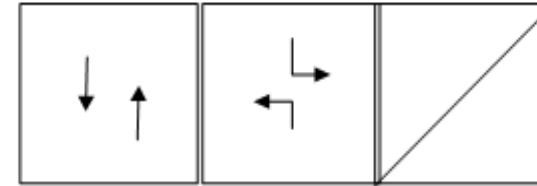
Leading Lefts



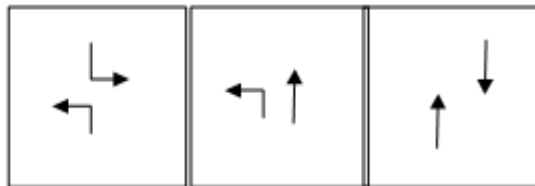
Lead-Lag



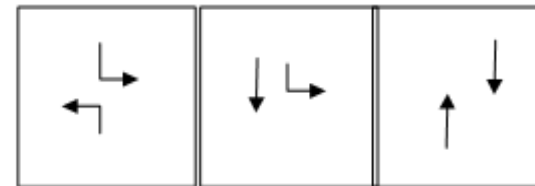
Lead-Lag



Lagging Lefts



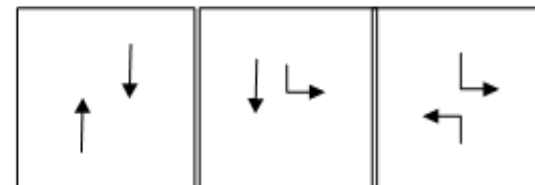
Leading Left with Overlap



Leading Left with Overlap



Lagging Left with Overlap



Lagging Left with Overlap



This Monday
@ 7:43:15



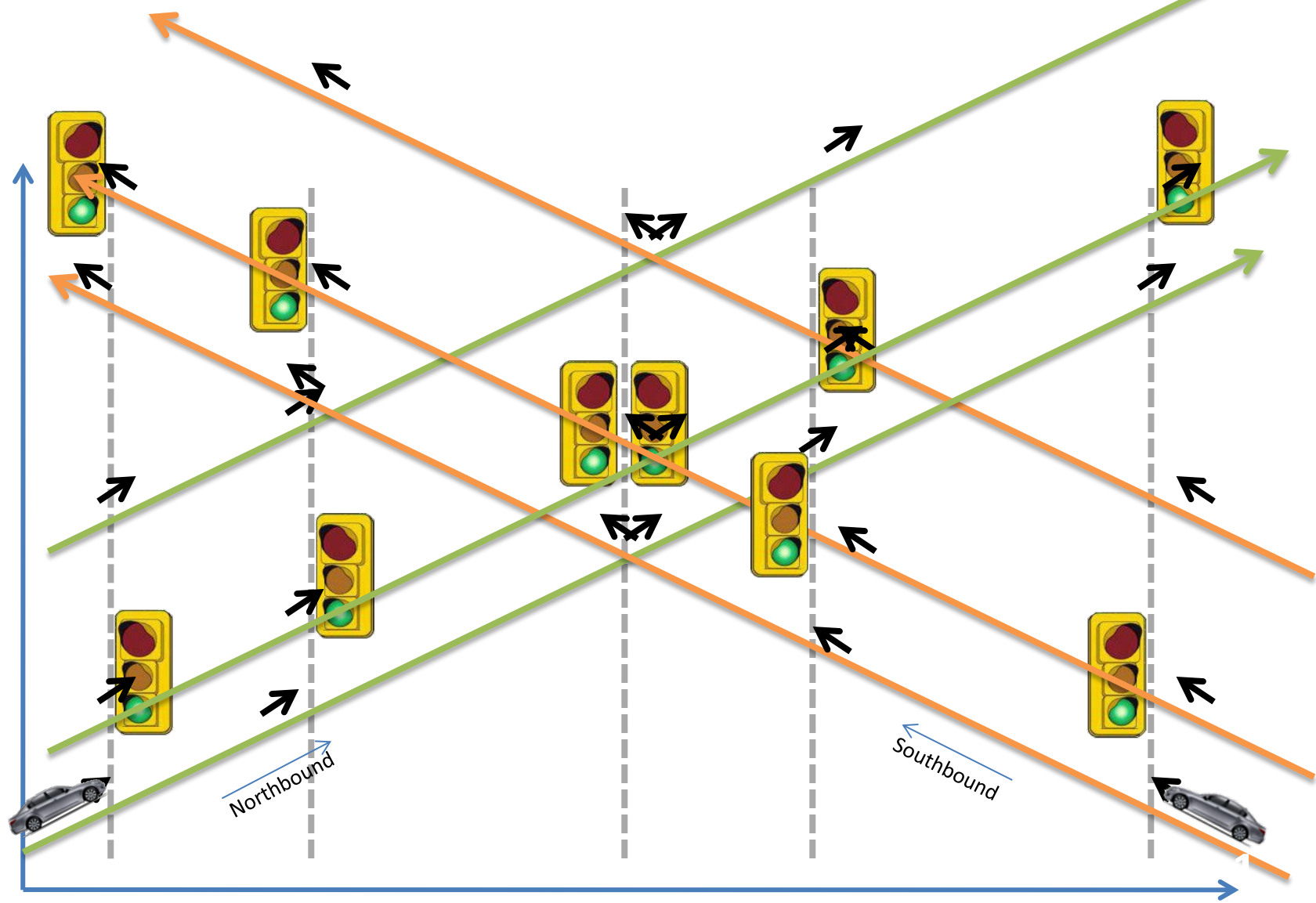
Next Monday
@ 7:43:15





In|Sync[®]

Global Optimizer

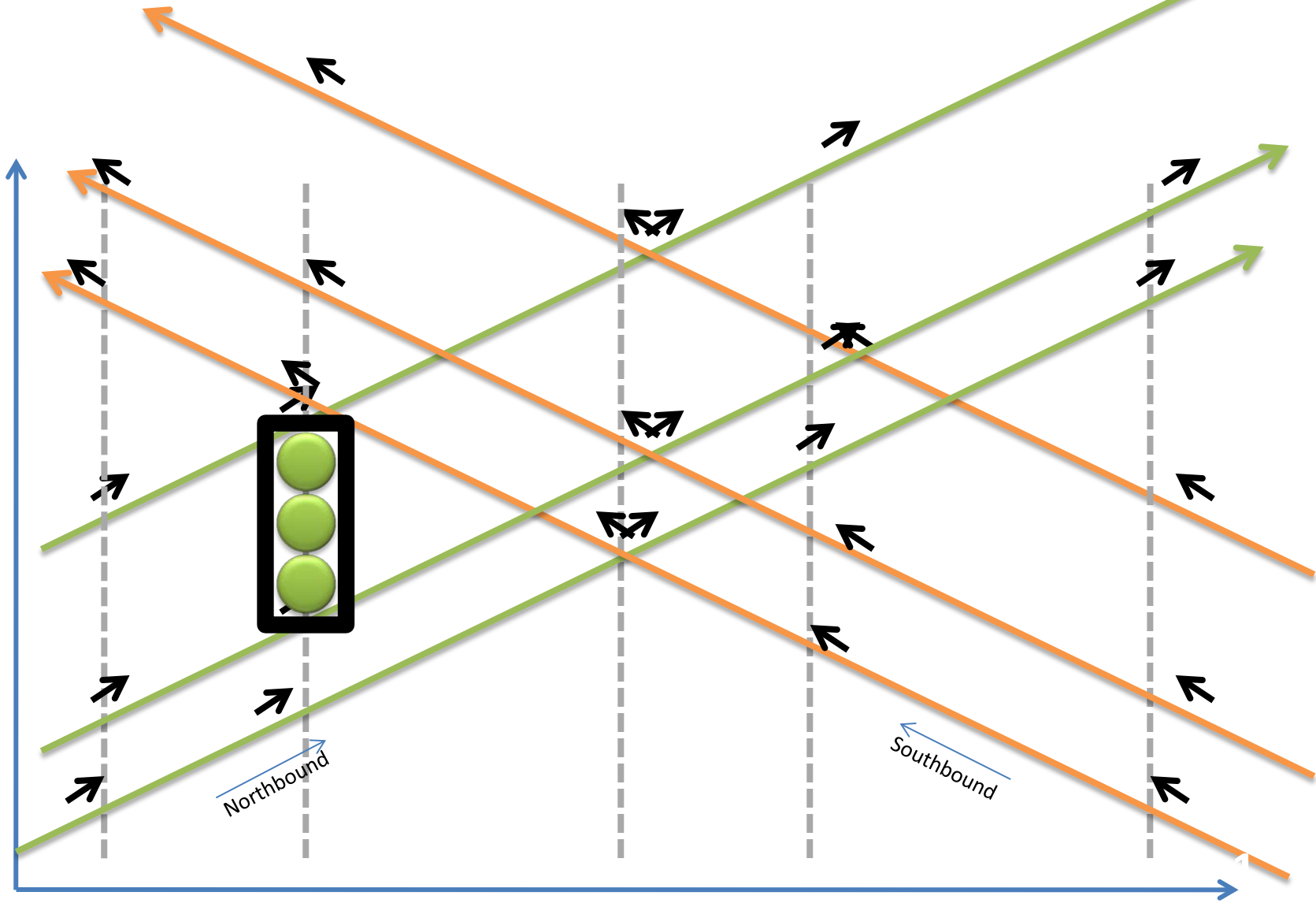


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Global Optimizer



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Intelligently fully-actuated intersections
to optimize all approaches

and

Coordinated progression





CentralSync[®]

InSync is protected by U.S. Patent Nos. 8,050,854; 8,103,436; 8,253,592 and other patents-pending.



CentralSync: C:\Users\Charlie\Desktop\Central Sync Files\rt 250 - vdot.xml

Corridor View Insert Help

Map Satellite

Property Value

Name	RT 250_Pantops Mtn
Location Latitude	38.026553789503325
Location Longitude	-78.43879401683807
IP	192 . 168 . 25 . 50
Subnet Mask	255 . 255 . 255 . 0
Gateway	192 . 168 . 25 . 1

Optimizer... Email Notification...

Config	Type
Default	Global
AM	Global
HS Football	Global
Noon	Global
Offpeak	Global

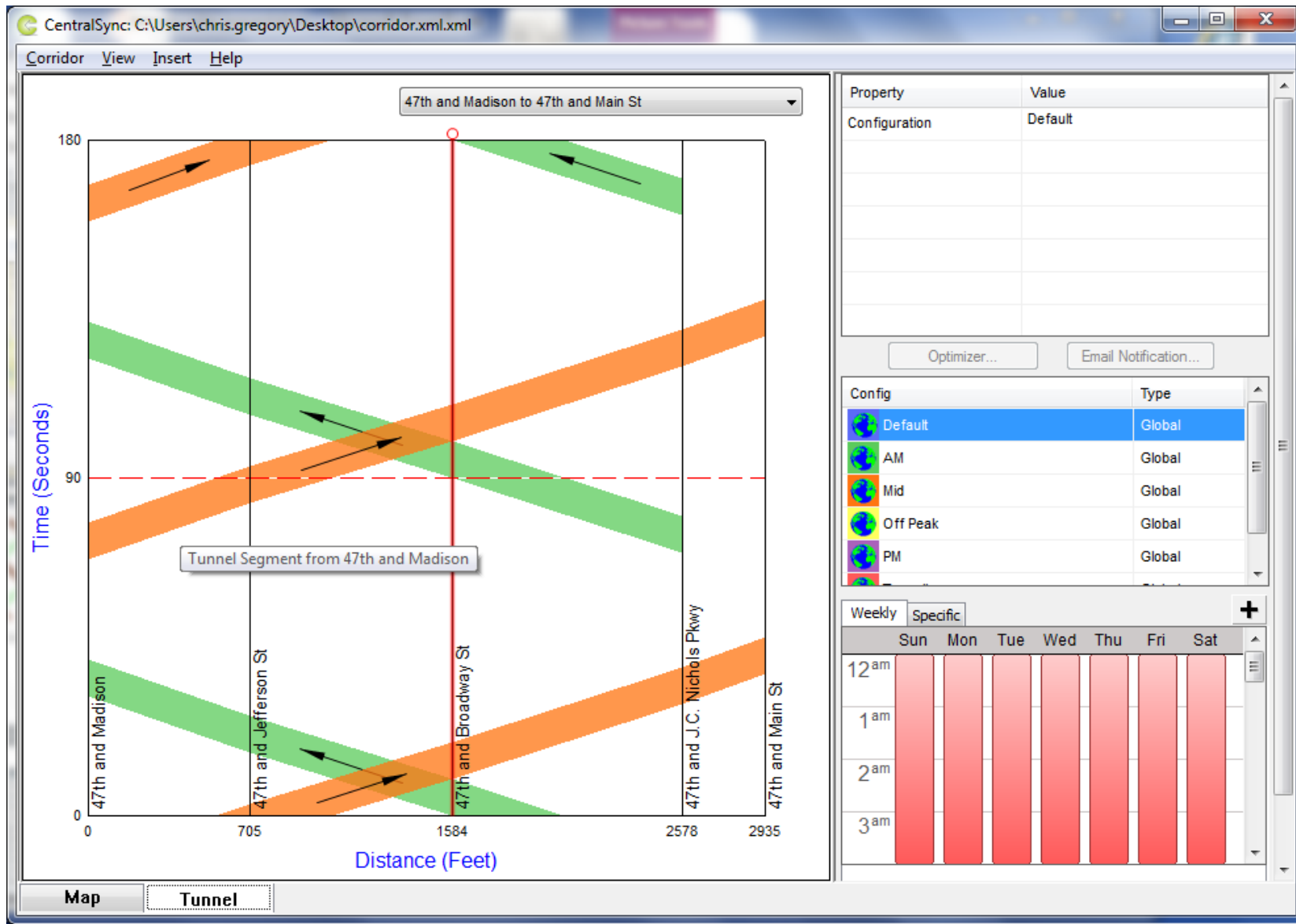
Weekly Specific

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
5 am							
6 am							
7 am							
8 am							
9 am							
10 am							

Map Tunnel

Map data ©2012 Google - Terms of Use

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Standard View 2 FPS Pause

North Bound (day) 2/28/12 08:01:28 150
 phase 8: 8.12/12, 1.33
 phase 3: 3.3/9, 0.33
 CUTOFF 03:45
 Red Phase 4
 WBThru_WBLeftTurn 01:15-01:32:0
 EBThru_WBThru 01:32-02:02:0
 EBThru_EBLeftTurn 02:02-02:16:0
 San Ramon Valley Blvd_Bollinger

East Bound (day) 2/28/12 08:01:28 150
 phase 2: 7.7/11, 0.64
 phase 5: 0.0/11, 0.00
 CUTOFF 03:45
 Red Phase 2
 WBThru_WBLeftTurn 01:15-01:32:0
 EBThru_WBThru 01:32-02:02:0
 EBThru_EBLeftTurn 02:02-02:16:0
 San Ramon Valley Blvd_Bollinger

South Bound (day) 2/28/12 08:01:27 150
 phase 4: 0.0/10, 0.00
 phase 7: 0.0/10, 0.00
 CUTOFF 03:45
 Red Phase 3
 WBThru_WBLeftTurn 01:15-01:32:0
 EBThru_WBThru 01:32-02:02:0
 EBThru_EBLeftTurn 02:02-02:16:0
 San Ramon Valley Blvd_Bollinger

West Bound (day) 2/28/12 08:01:28 150
 phase 6: 5.5/5, 1.00 CALL 3/17
 phase 1: 5.20/20, 4.00 CALL 3/17
 CUTOFF 03:45
 Red Phase 6
 WBThru_WBLeftTurn 01:15-01:32:0
 EBThru_WBThru 01:32-02:02:0
 EBThru_EBLeftTurn 02:02-02:16:0
 San Ramon Valley Blvd_Bollinger

Enable Manual Controls



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how it works



Safety and
operational results



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**“Adaptive Traffic Control
Systems deployment
improves the safety
of traffic operations...”**

Source: NCHRP 403



**“...through reductions
of efficiency-related
performance measures,
which correlate with some
safety metrics”**

Source: NCHRP 403



Better operations = safer

Fewer stops	Less disparity in speed
Less queuing	Less opportunity for crash
Less travel time	Less opportunity for crash, safer motorist behaviors
Better level of service	Less red light running, safer motorist behaviors
Dynamic phasing	Better driver attentiveness, safer motorist behaviors



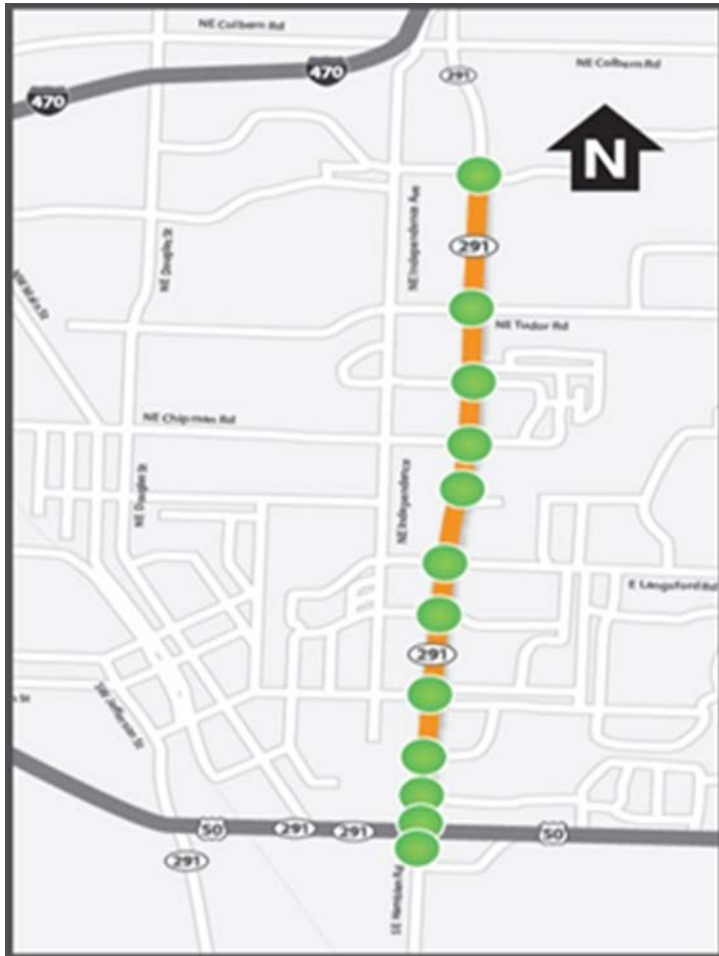
Route 291, Lee's Summit, Missouri



- Oddly-spaced arterial
- 12 intersections on 2.5 miles
- ADT of 25,779
- Previously controlled by coordinated timing plans



Route 291, Lee's Summit, Missouri



Overall operational improvements

- Stops reduced 95%
- Delay reduced 87%
- Travel time reduced 58%
- Operational benefit= \$2,452,493/yr



Route 291, Lee's Summit, Missouri

17%
CRASH REDUCTION

Crash reductions =
\$1,247,895/yr

Operations + safety =
\$3,700,388/yr



Chipman Road, Lee's Summit, MO

- Arterial corridor
- 8 signals on one mile
- ADT of 27,000
- Deployment received the Kansas City Chapter of ITE's 2011 Excellence in Transportation Award

Chipman Road, Lee's Summit, MO

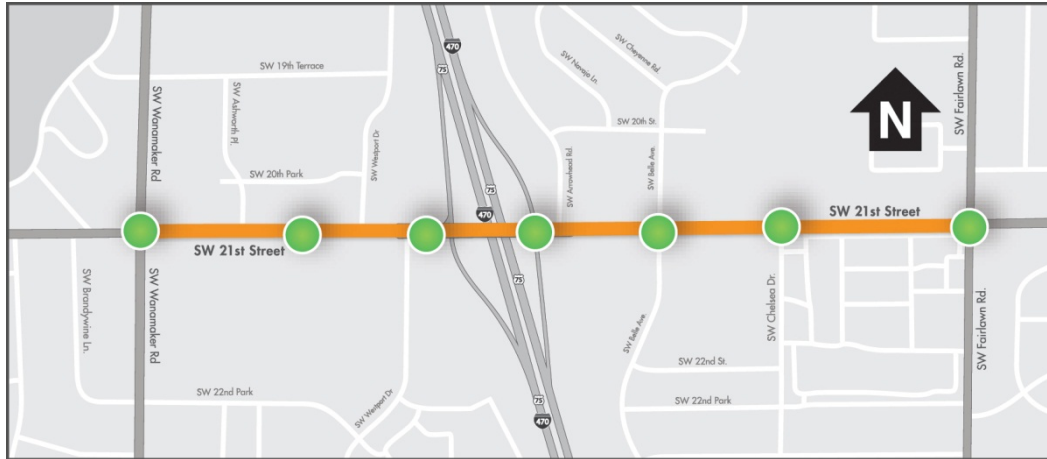
	Before			After	Change	
Collision Type	2009	2010	Avg.	2011*	Qty.	%
Rear-end	52	46	49	44	-5	-10.2
Left-turn	13	10	11.5	6	-5.5	-47.8
All others	22	35	28.5	26	-2.5	-8.8
Total	87	91	89	76	-13	-14.6

*Data was supplied for the first six months of 2011 and doubled to estimate annual quantity.

Crash reductions =

\$360,503/yr

21st Street, Topeka, Kansas



Overall operational improvements

- Stops reduced 79%
- Delay reduced 68%
- Travel time reduced 43%
- Operational benefit = \$2,087,501/yr

Source: Linda Voss, Traffic Engineer for City of Topeka

21st Street, Topeka, Kansas



Collision Type	Before			After			Change	
	2009	2010	Avg.	2011	2012	Avg.	#	%
Rear-end	86	91	88.5	62	63	62.5	-23	-25.9%
All others	55	52	53.5	42	49	45.5	-8	-14.9%
Total	141	143	142	104	112	108	-34	-23.9%

Crash reductions =
\$1,053,796/yr

Operations + safety =
\$3,141,297/yr

Hwy 71, Springdale, Arkansas



- Major arterial
- 8 signals on three miles
- AADT of 30,000
- Previously controlled by uncoordinated signal plans

Hwy 71, Springdale, Arkansas



Overall operational improvements

- Stops reduced 88%
- Delay reduced 80%
- Travel time reduced 36%
- Operational benefit = \$5,083,254/yr

Source: City of Springdale, Arkansas



Hwy 71, Springdale, Arkansas

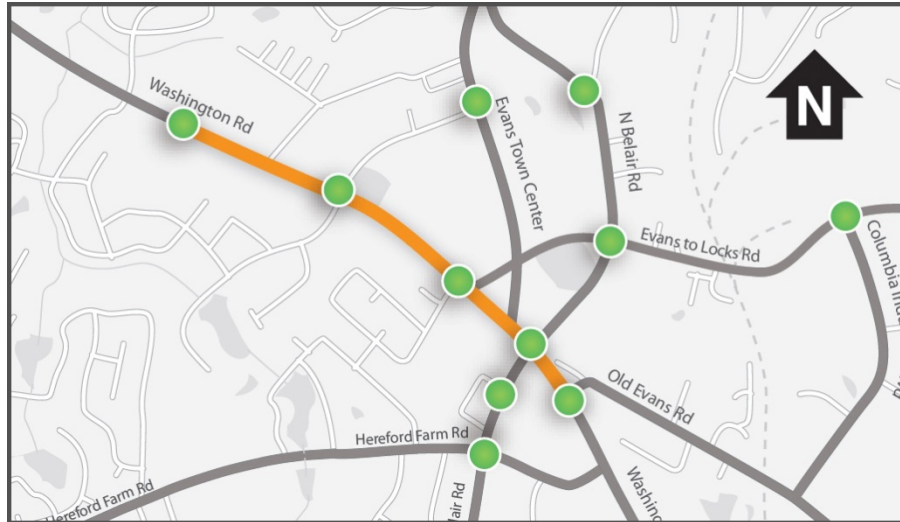


	Before	After	Change	
	May 2009 - April 2010	May 2010 - April 2011	Quantity	Percentage
Total crashes	63	44	-19	-30.2%

Crash reductions =
\$526,898/yr

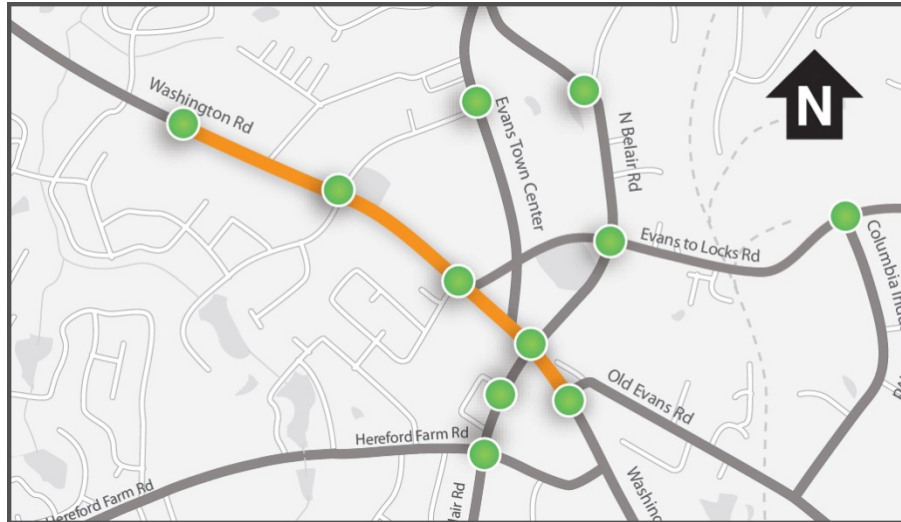
Operations + safety =
\$5,610,152/yr

Washington Rd, Columbia County, GA



- Intersecting arterial
- 5 signals on one mile
- AADT of 40,000
- Previously controlled by coordinated TOD plans

Washington Rd, Columbia County, GA



Overall operational improvements

- Stops reduced 77%
- Delay reduced 81%
- Travel time reduced 34%
- Operational benefit = \$2,624,802/yr

Source: Columbia County Traffic Engineer

Washington Rd, Columbia County, GA



Collision Location	2009	2010	Quantity Change	Percentage Change
Mid Block and Driveway Collisions	48	41	-7	-14.6%
Intersection Collisions	114	79	-35	-30.7%
Total	162	120	-42	-25.9%

Crash reductions =
\$1,164,702/yr

Operations + safety =
\$3,789,504/yr

Source: Columbia County Traffic Engineer



Crash reduction results

24%

Source: Topeka, KS
City Traffic Engineer

17%

Source: Lee's Summit, MO
Police Department

30%

Source: Springdale, AR
Police Department

26%

Source: Columbia County, GA
County Traffic Engineer

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Product and Options	Price per Intersection	Detection
InSync	\$25,000	Up to four cameras included
InSync:Tesla	\$25,000	Uses your preferred detectors
InSync:Fusion	\$30,000	Up to four cameras included & integrates existing detectors
Pedestrian Module	+\$5,000	
Project Management	+\$1,000 or less	

Prices do not include communications, installation, mounting hardware, 14-3 and Cat5e wires, shipping, taxes, spare systems, and peripherals such as in-cabinet monitors and keyboards.



In|Sync[®] Promise





In|Sync[®] Promise

“If after three months of adaptive operation you do not feel our partnership has had a positive impact in terms of reduced travel times, emissions, fuel consumption and improved safety, we will issue you a full refund”



Understand
how it works



Field results from
agencies nationwide



See the financial
investment

Save time

Save fuel

Save money

Save the environment

Save lives

COLUMBIA COUNTY, GA

WASHINGTON ROAD

JANUARY, 2010



Contact info here

Download online:

InSync White Paper: rhythmtraffic.com/paper

ATCS Grant Funding Playbook: rhythmtraffic.com/grants

2012 Corridor Management Report: rhythmtraffic.com/survey



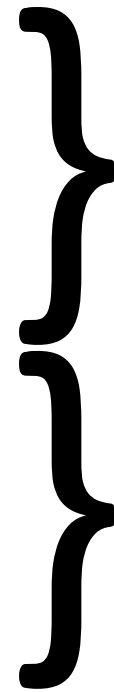
In|Sync[®]

End of presentation



Adaptability:

- Phasing
- Green time
- Sequencing
- Period length
- Tunnel duration



Local

Global

