

UDOT Signal Performance Metrics: Configuration

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Metric Type

- Purdue Phase Termination
- Split Monitor
- Purdue Coordination Diagram
- Approach Volume
- Approach Delay
- Arrivals on Red
- Speed
- Turning Movement Counts
- Yellow and Red Actuations
- Purdue Split Failure
- Pedestrian Delay
- Transitions
- Preemption Details
- Transit Signal Priority Details

Las Vegas Henderson

10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Create Metrics

Configuration Utility – Basic Metrics

SPM Configuration Tool

6653 : Industrial Pkwy (700 E) @ 1860 South
 6654 : 180 East @ East Bay Boulevard
 6655 : Town Center Boulevard @ Town Center Dr
 6659 : Columbia Lane @ Grandview Lane
 6701 : Pleasant Grove Blvd @ 1300 West
 6718 : Center St @ 100 East (PG)
 6720 : Main (Lehi) @ 500 East/Pioneer
 6721 : Main (Lehi) @ Center
 6722 : Main St (Lehi) @ 2300 W / Saratoga Rd
 6725 : Digital Dr. @ Adobe Way (Lehi)
 6726 : Cabelas Blvd. @ Triumph Blvd. (Lehi)
 6779 : Lehi Main St @ E Commerce Dr.
 6780 : Crossroads Blvd @ West Commerce Dr
 6781 : Pony Express Pkwy @ Thunder Blvd (200 W)
 6800 : 200 E. @ 1000 N.
 6801 : 400 E. @ 1000 N.
 6803 : 1600 N. @ Main St.
 6950 : 800 S @ Main St
 7002 : 3000 East @ 6200 South
 7003 : Wasatch Blvd (SR-190) @ 6200 South/Was
 7004 : Fashion Blvd (280 East) @ 6400 South (Wir
 7005 : 7200 South @ 180 West
 7006 : 7200 South @ 300 West
 7007 : 7200 South @ 700 West
 7008 : 7800 South @ Campus View Dr / 3800 We
 7009 : SR-209 (1100 E) @ 9100 South
 7010 : 2200 West @ 7800 South
 7011 : 2700 West @ 7800 South
 7012 : 3200 West @ 7800 South
 7013 : 7800 S. @ 4000 W.
 7014 : 9000 South @ 450 West (Sandy Parkway)
 7015 : 700 West @ 9000 South
 7016 : 1300 West @ 9000 South
 7017 : 1100 East @ 9400 South
 7018 : 1300 East @ 9400 South
 7019 : 2000 East (Highland Dr) @ 9400 South
 7020 : 2300 East @ 9400 South
 7021 : 10400 South @ 1300 West
 7022 : 10400 South @ 1600 West (Beckstead)
 7023 : 12600 South @ 1300 West
 7024 : 7200 S. @ Bingham Junction

SignalID
7005

Primary Name
7200 South

Latitude
40.6205698

Controller Type
1 - ASC3

Save Updates

Secondary Name
180 West

Longitude
-111.8966369

Collection Frequency

Add New Signal

IP Address
0.0.0.0

Region
2 - Region

Add Detector

Delete Signal

Import Event Logs

700500

7005 Detector ID: 700500

Detector Chann 0	Protected Phase 2	Permitted Phase 0	Direction Northbound	<input checked="" type="checkbox"/> Enabled
IP Address 0	Port 0	Dist. From Stopba 0	MPH 0	<input type="checkbox"/> PCD
Decision Point 0	Movement Delay 0	Region 2	Min Speed Filtr 0	<input type="checkbox"/> Speed
			<input type="checkbox"/> TMC	Lane Type --
			<input type="checkbox"/> RLM	

Date Added: Select a date [15] Monitor Date: Select a date [15]

Save Copy Delete

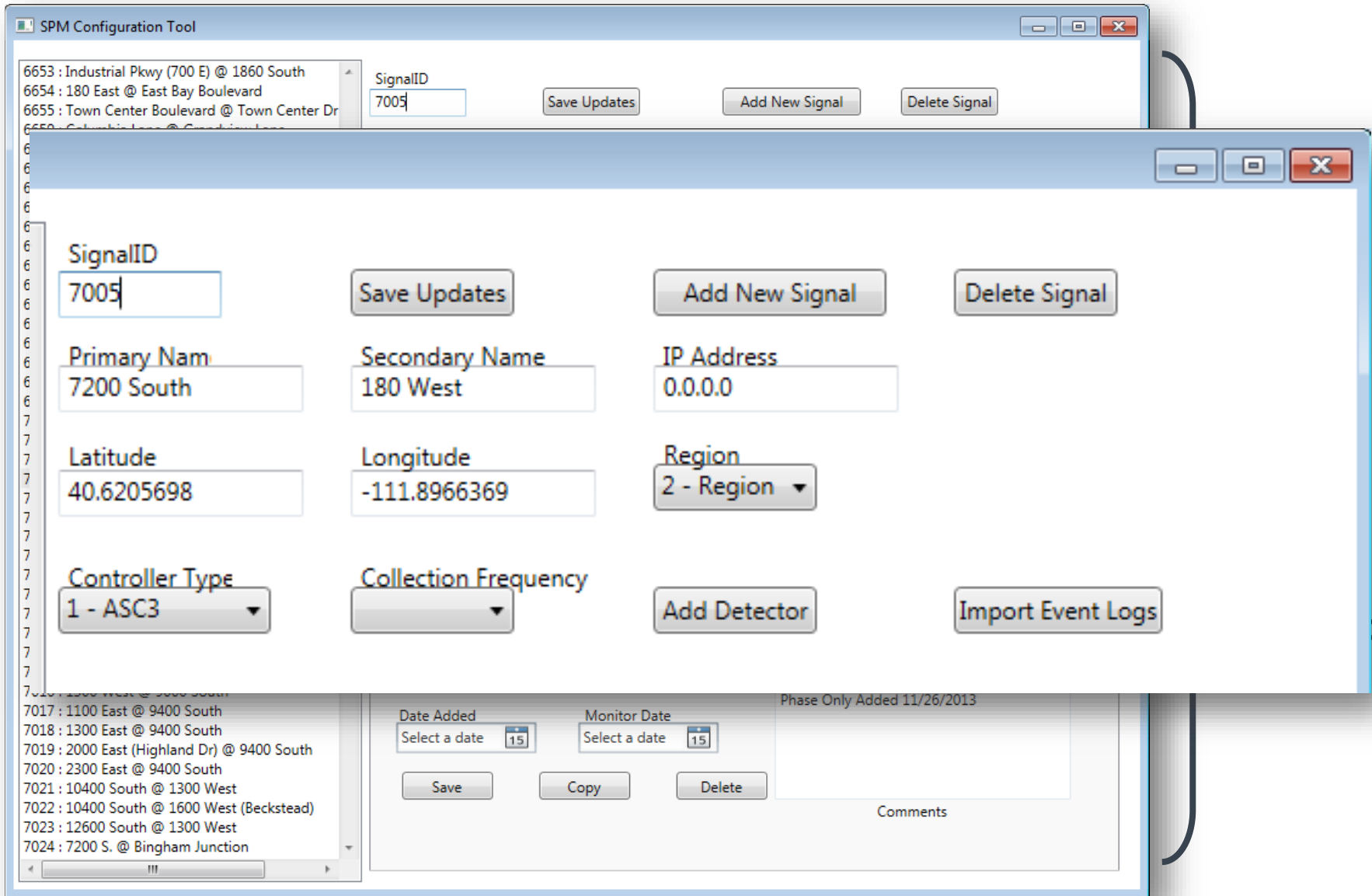
Phase Only Added 11/26/2013

Comments

Signal

Detectors

Configuration Utility – Basic Metrics



The screenshot displays the SPM Configuration Tool interface. At the top, a list of signal locations is shown, with '7005 : Columbia Ave @ Grandview Ave' selected. The main configuration area for SignalID 7005 includes the following fields and controls:

- SignalID:** 7005
- Primary Name:** 7200 South
- Secondary Name:** 180 West
- Latitude:** 40.6205698
- Longitude:** -111.8966369
- Region:** 2 - Region
- Controller Type:** 1 - ASC3
- Collection Frequency:** (dropdown menu)

Buttons for 'Save Updates', 'Add New Signal', and 'Delete Signal' are present. A 'Date Added' field is set to 11/26/2013, and a 'Monitor Date' field is set to 15. A 'Comments' section is also visible.

ors

Configuration Utility – Basic Metrics

SDM Configuration Tool

700500

7005

Detector ID: 700500

Detector Chann
0

Protected Phase: 2

Permitted Phase: 0

Direction: Northbound

Enabled

PCD

Speed

Overlap

Split Fail

IP Address: 0

Port: 0

Dist. From Stopbar: 0

MPH: 0

Decision Point: 0

Movement Delay: 0

Region: 2

Min Speed Filtr: 0

TMC

RLM

Lane Type: --

Date Added: Select a date 15

Monitor Date: Select a date 15

Phase Only Added 11/26/2013

Comments

Save Copy Delete

ors

Configuration Utility – Purdue Coordination Diagram



Configuration Utility – Purdue Coordination Diagram

702300
702310
702312

7023
Detector ID:

Detector Chann

Protected Phase

Permitted Phase

Direction

Enabled
 PCD
 Speed
 Overlap
 Split Fail

IP Address

Port

Dist. From Stopba

MPH

Decision Point

Movement Delay

Region

Min Speed Filte

TMC
 RLM

Lane Type

Date Added

Monitor Date

7/11/0214

Comments

Configuration Utility – Turning Movement Counts



Configuration Utility – Turning Movement Counts

701414	701416	701419	701420	701421	701422	701423
701403	701404	701405	701406	701407	701408	

7014 Detector ID:

Detector Chann

Protected Phase

Permitted Phase

Direction

Enabled
 PCD
 Speed
 Overlap
 Split Fail

IP Address

Port

Dist. From Stopbar

MPH

Decision Point

Movement Delay

Region

Min Speed Filter

TMC
 RLM

Lane Type

Date Added

Monitor Date

TMC added 5/19/2014

Comments

Configuration Utility – Yellow & Red Actuations



Configuration Utility – Yellow & Red Actuations

737910	737912	737921	737922	737923	737924	737931	737932	737933	737934	737935
737936	737941	737942	737943	737944	737945	737946	737951	737952	737953	737954
737955	737956	737957	737958	737959	737960	737961	737962	737963	737964	

7379 Detector ID:

Detector Chann
 Protected Phase
 Permitted Phase
 Direction

IP Address
 Port
 Dist. From Stopbar
 MPH

Enabled
 PCD
 Speed
 Overlap
 Split Fail

TMC
 RLM
 Lane Type

Decision Point
 Movement Delay
 Region
 Min Speed Filter

Date Added
 Monitor Date

Comments

Configuration Utility – Purdue Split Failure



Configuration Utility – Purdue Split Failure

735512	735513	735514	735516	735517	735518	735519	735520	735521
735523	735524	735525	735526	735527	735528	735529	735530	735531
735500	735502	735503	735504	735505	735506	735507	735509	735510

7355 Detector ID:

Detector Chann
 Protected Phase
 Permitted Phase
 Direction

IP Address
 Port
 Dist. From Stopbar
 MPH

Decision Point
 Movement Delay
 Region
 Min Speed Filter

Enabled
 PCD
 Speed
 Overlap

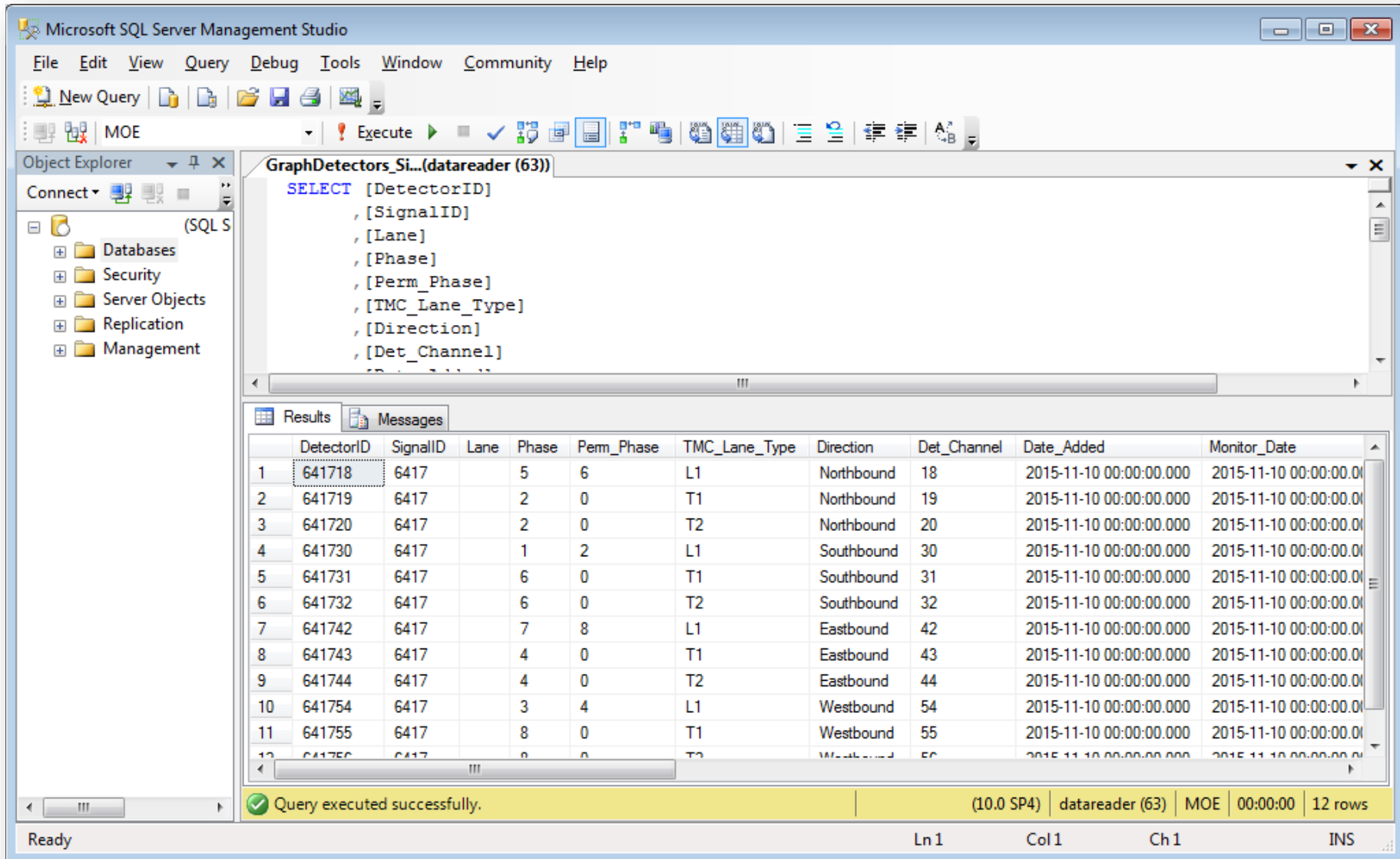
Split Fail

TMC
 RLM
 Lane Type

Date Added
 Monitor Date

Comments

Database Access



The screenshot shows Microsoft SQL Server Management Studio with a query window titled 'GraphDetectors_Si...(datareader (63))'. The query is a SELECT statement listing various fields from a table. The results pane shows a table with 12 rows of data. The status bar at the bottom indicates the query was executed successfully, returning 12 rows.

Query:

```
SELECT [DetectorID]
, [SignalID]
, [Lane]
, [Phase]
, [Perm_Phase]
, [TMC_Lane_Type]
, [Direction]
, [Det_Channel]
```

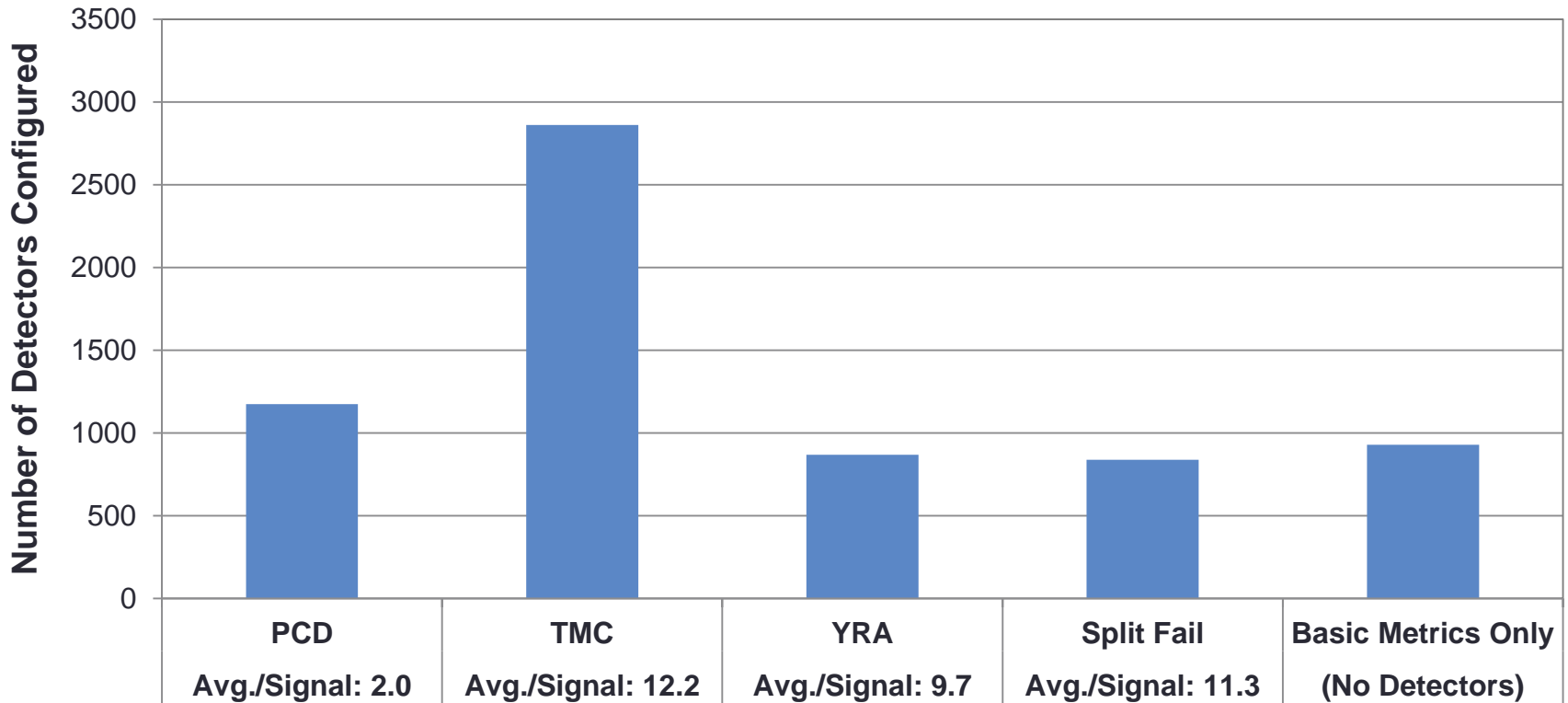
Results Table:

	DetectorID	SignalID	Lane	Phase	Perm_Phase	TMC_Lane_Type	Direction	Det_Channel	Date_Added	Monitor_Date
1	641718	6417		5	6	L1	Northbound	18	2015-11-10 00:00:00.000	2015-11-10 00:00:00.000
2	641719	6417		2	0	T1	Northbound	19	2015-11-10 00:00:00.000	2015-11-10 00:00:00.000
3	641720	6417		2	0	T2	Northbound	20	2015-11-10 00:00:00.000	2015-11-10 00:00:00.000
4	641730	6417		1	2	L1	Southbound	30	2015-11-10 00:00:00.000	2015-11-10 00:00:00.000
5	641731	6417		6	0	T1	Southbound	31	2015-11-10 00:00:00.000	2015-11-10 00:00:00.000
6	641732	6417		6	0	T2	Southbound	32	2015-11-10 00:00:00.000	2015-11-10 00:00:00.000
7	641742	6417		7	8	L1	Eastbound	42	2015-11-10 00:00:00.000	2015-11-10 00:00:00.000
8	641743	6417		4	0	T1	Eastbound	43	2015-11-10 00:00:00.000	2015-11-10 00:00:00.000
9	641744	6417		4	0	T2	Eastbound	44	2015-11-10 00:00:00.000	2015-11-10 00:00:00.000
10	641754	6417		3	4	L1	Westbound	54	2015-11-10 00:00:00.000	2015-11-10 00:00:00.000
11	641755	6417		8	0	T1	Westbound	55	2015-11-10 00:00:00.000	2015-11-10 00:00:00.000
12	641756	6417		8	0	T2	Westbound	56	2015-11-10 00:00:00.000	2015-11-10 00:00:00.000

Status Bar: Query executed successfully. (10.0 SP4) datareader (63) MOE 00:00:00 12 rows

UDOT Configuration Stats

Detector Count by Metric



Total: 5743 detectors + 1670 signals

Signal Numbering

- Region 1
 - UDOT 5000 – 5499
 - Non-UDOT 5500 – 5999
- Region 2
 - UDOT 7000 – 7999
 - Salt Lake City 1000 – 1999
 - Salt Lake County 4000 – 4999
- Region 3
 - UDOT 6000 – 6499
 - Non-UDOT 6500 – 6999
- Region 4
 - UDOT 8100 – 8599
 - Non-UDOT 8600 – 8899
- Other
 - Ramp Meters 8000 – 8099
 - Test controllers 9000 – 9999

Utah Statewide Signal Numbering Convention

Revised November 26, 2012

UDOT Region 1 (Weber, Davis, Cache, Box Elder, Rich, and Morgan Counties)

UDOT Signals: 5000 – 5499

Non-UDOT Signals: 5500 – 5999

Ogden City: 5500 – 5599

Layton City: 5600 – 5699

Bountiful City: 5700 – 5724

Centerville City: 5725 – 5749

North Salt Lake: 5750 – 5774

Logan: 5800 – 5849

Other Jurisdictions not listed: 5775 – 5799, 5850 – 5999

UDOT Region 2 (Salt Lake, Tooele, and Summit Counties)

UDOT Signals: 7000 – 7999

Non-UDOT Signals: 1000 – 4999, 8900 – 8999

Salt Lake City Devices: 1000 – 2999

Salt Lake City Signals: 1000 – 1999

Salt Lake City System Detectors: 2000 – 2999

Salt Lake County Devices: 3000 – 4999

Salt Lake County Signals: 4000 – 4999 (includes all Cities in Salt Lake County except SLC)

Salt Lake County System Detectors: 3000 – 3999

Other Jurisdictions in Tooele or Summit Counties: 8900 – 8999

UDOT Region 3 (Utah, Wasatch, Uinta, Duchesne, Juab, and Daggett Counties)

UDOT Signals: 6000 – 6499

UDOT Signals within Orem City Limits: 6300 – 6399

UDOT Signals within Provo City Limits: 6400 – 6499

Non-UDOT Signals: 6500 – 6999

Orem City: 6500 – 6599

Provo City: 6600 – 6699

Pleasant Grove: 6700 – 6719

Lehi: 6720 – 6749

Other Jurisdictions not listed: 6750 – 6999

UDOT Region 4 (Washington, Iron, Sevier, Grand, Carbon, Sanpete, Kane, San Juan, Garfield, Beaver, Millard, Piute, Wayne, and Emery Counties)

UDOT Signals: 8100 – 8599

UDOT Signals in Washington County (St. George): 8100 – 8199

UDOT Signals in Iron County (Cedar City): 8200 – 8274

UDOT Signals in Grand County (Moab): 8300 – 8349

UDOT Signals in Sevier County (Richfield): 8400 – 8449

UDOT Signals in Carbon County (Price): 8500 – 8549

UDOT Signals in other areas not listed here: 8276 – 8299, 8350 – 8399, 8450 – 8499, 8550 – 8599

Non-UDOT Signals: 8600 – 8899

St. George City: 8600 – 8699

Cedar City: 8700 – 8724

Santa Clara City: 8725 – 8749

Price City: 8800 – 8824

Washington City: 8825 – 8849

Other Jurisdictions not listed: 8750 – 8799, 8850 – 8899

Others

System Tree Entities (e.g. i2 System, Zone, Section, etc): 0000 – 0999

UDOT Ramp Meters (all Regions): 8000 – 8099 (list is maintained by Freeway Operations)

UDOT System Detectors and Test Devices (all Regions): 9000 – 9999

Master Database

All signals should be assigned a number, even if they are not connected to the communications network.

Signal number assignments are in the most recent file in this folder on the Traffic Operations Center share drive:

S:\TMD 8384 Traffic Signal Operations\Central Systems\Statewide Signal Numbers

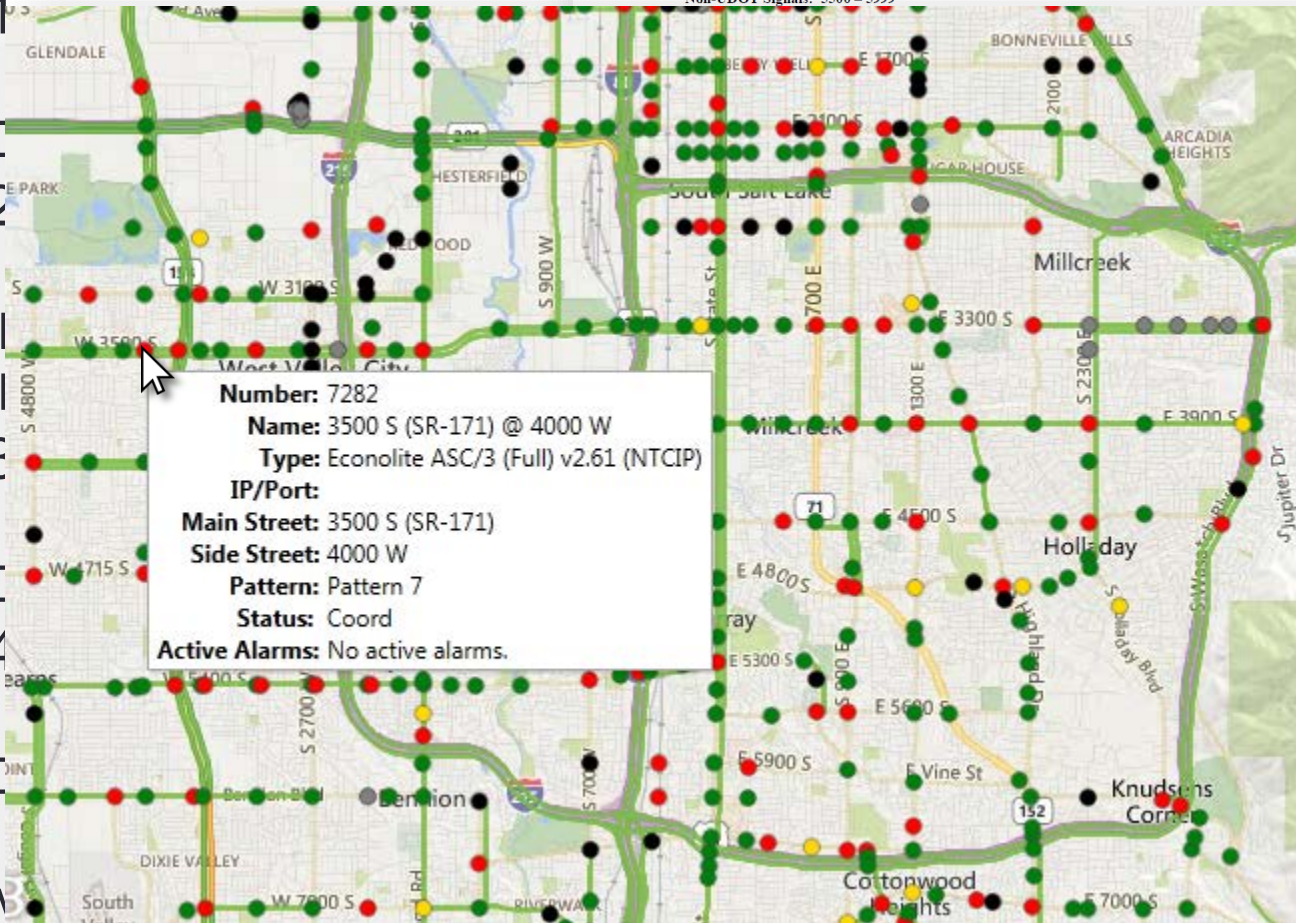
Signal Numbering

- Region 1
 - UDOT
 - Non-UDOT
- Region 2
 - UDOT
 - Salt Lake
 - Salt Lake
- Region 3
 - UDOT
 - Non-UDOT
- Region 4
 - UDOT
 - Non-UDOT
- Other
 - Ramp Meter
 - Test controllers 9000 – 9999

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