

What is Adaptive Signal Control Technology (ASCT)?

- Adaptive Signal Control Technology is utilized as an operations strategy to improve the performance of traffic signal timing and to reduce congestion.
- **Traffic adaptive systems perform 'real-time' adjustments to the cycle length, splits and offsets in response to traffic demand.**



What can ASCT do?

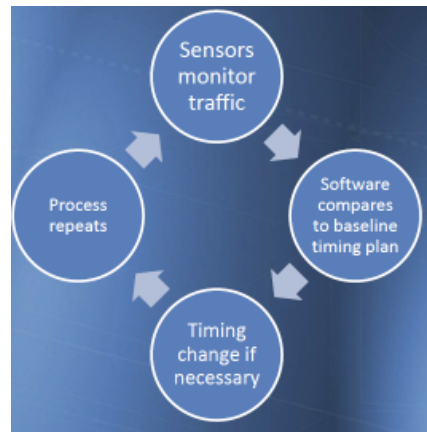
ASCT has the ability to:

- Automatically adapt to unexpected changes in traffic conditions.
- Improve travel time reliability.
- Reduce congestion and fuel consumption.
- Prolong the effectiveness of traffic signal timing.
- Reduce the complaints that agencies receive in response to outdated signal timing.
- Make traffic signal operations proactive by monitoring and responding to gaps in performance.



How it works

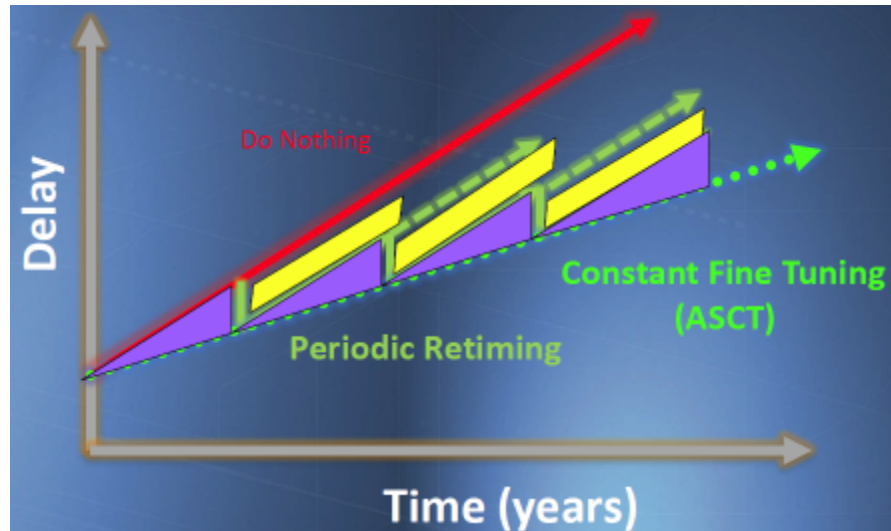
- Step 1 – Traffic sensors collect data
- Step 2 – Data is evaluated & timing improvements are developed
- Step 3 – ASCT implements signal timing updates
- Step 4 – Repeats every few minutes



Benefits to Traffic Signal Retiming



Benefits to Adaptive Traffic Control



Why Adaptive Signal Control Technologies?

- Deliver improved service to road users
- Solve problems for signal operators
- Provide value

Deployments in PA

- District 6, 8 and 11
- District 8 details
 - 2 corridors in operation
 - 3 corridors in construction
 - 3 corridors in design
 - At least 3 other corridors will be in design in near future



Process in District 8



ISO 14001 Certified

↑ = District office

Site best viewed at 800X600 screen resolution with IE 5.0+

1-800-FIX-ROAD



Stakeholders

- Municipalities
- District 8
- MPO/RPO's
- PennDOT Central Office
- FHWA



Documentation

- **TE-160 Forms** – Traffic Signal Maintenance Agreement & Application combined
- **TE-153 Form** – Adaptive Signal Control System Evaluation
- **TE-152 Form** – TS Proprietary item analysis engineering and traffic study

Traffic Signal Portal –

www.dot.state.pa.us/signals



Documentation

- Revised Signal Permits
- System Permit Plan
- Inter-Municipal Agreement
- Travel Time & Delay Study



District 8 Corridors with ASCT

- **Operational**
 - Carlisle Borough – High St & Hanover St
 - SR 0422 in Lebanon County
- **In Construction**
 - SR 0022 in Dauphin County
 - Carlisle Pike SR 0011 in Cumberland County
 - Camp Hill Bypass in Cumberland County



District 8 Corridors with ASCT

- **In Design**

- Lititz Pike SR 0501 in Lancaster County
- Harrisburg Pike SR 4020 in Lancaster County
- Mt. Rose Ave SR 0124/I-83 Exit 18 Interchange in York County



Comments/Questions

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THANK YOU

?? QUESTIONS ??

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