GDOT’s Measurement, Accuracy, and Reliability Kit (MARK 1) synthesizes high-resolution data from over 6,000 traffic signal controllers. Performance measures, including throughput, arrivals on green, split failures and equipment uptimes are reported to support the optimization of traffic signals managed by the Regional Traffic Operations Program (RTOP) and the statewide Regional Traffic Signal Operations (RTSO) program.

MARK 1 has transformed how resources are managed and focused; allowing practitioners to effectively prioritize needs and workload, saving hundreds of hours each month and approximately $250,000 annually. The public facing website allows engineers to track trends on an intersection, corridor, and programmatic level as well as visualize maintenance-related problems.

GDOT has demonstrated leadership throughout the industry with the development of MARK 1 and contributed new performance measures and visualizations to the open source ATSPM codebase maintained by Utah DOT. The industry has noticed – GDOT won the 2019 National Operations Center of Excellence: Data Management Award as well as the 2018 ITS GA Innovation: Outside the Box Award.

MARK 1 is open source and publicly accessible at: https://atops.shinyapps.io/GDOT_MARK1/