



Spotlight 1 Questions – Prioritizing Project Selections for Operations with Michigan:

Q1: Luis Velasquez (ARCADIS): What level of cost estimate do you use for the B/C? 30% cost? Historical average based on project type?

A: Jason Firman (MDOT): We require a sketch geometric concept scheme. From this they can pull quantities of various items like pavement, cable, etc. Other items like signals or maintaining traffic has historical values. If final costs are over 20% of what was submitted, we reevaluate the B/C and determine if it should still go forward.

Q2: Matthew Glasser (GDOT): What has been the reception to the methodology?

A: Jason Firman (MDOT): The reception has gone over very well. These programs are statewide competitive based selection process and we needed a data driven way to prioritize projects from one region to another. The items we pull from RITIS are easy and no issues there. If there are any comments it's on the level of effort to analyze each project with Synchro, Rodel, VISSIM, etc. We currently use the Operations template funds to have consultants perform all the work so this hasn't been much of an issue.

Q3: Aidin Massahi (FDOT): How did you come up with the mentioned scores for different categories?

A: Jason Firman (MDOT): We formed a team to look over all the measures out there. We considered 10-20 different performance measures. We looked at ones that were easy to get, meaningful (best describes the issues and we could move the needle) and understandable.

Q4: Greg Jordan (UMD CATT Lab): On your before/after analysis on your last slide, did you find that reliability improved as well as travel time?

A: Jason Firman (MDOT): The reliability improved more than the travel time. The PTI was reduce by 50% for SB. NB didn't improve as much but that was expected as a lane drop still existed but still improved.

Q5: Michelle Arnold (HNTB): I am trying to prioritize projects and would like to include PTI, but I have literally thousands of segments. Is there a database that a GIS analyst can use to get the information more quickly than doing it manually? Thanks.

A: Michael Pack (UMD CATT Lab): If you have a rockstar GIS analyst, then you can always export data from the Suite to a CSV file for external analysis. But that said, the PDA Suite has a mapping component that will allow you to map segments by PTI. There are many ways to select large numbers of segments at a time which we can demonstrate offline. There is also an API that we developed that will provide programmatic access to the performance measures, but you'll need someone who knows how to code to use the API properly. Alternatively, you could first run a query in the Trend Map tool for your region, then you could switch the mapping values over to PTI. (using the dropdown menu in the upper left corner of the trend map results). If



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you wanted a GIS person to take it further you could then export the data behind the PTI map to an Excel file for offline analysis.

Spotlight 2 Questions – Using RITIS to support project prioritization in Georgia:

Q6: Matthew Glasser (GDOT): Prior to using this tool, what was your primary way of identifying problem locations?

A: Shahram Malek (ARCADIS): We were using an infrastructure-based Bluetooth sniffer platform. The difficulty we had was maintenance of field infrastructure. Working for government agencies, there are gaps in funding and we lost access to maintenance funding. There were times where we were 'blind' from a data sense. The program is fluid – we started with 240 intersections and we're now up to 1800 intersections. As the program grew, we no longer have to invest in the infrastructure side now that we have access to RITIS. If there's an event – like a race – there are two corridors within RTOP – we can monitor them. RITIS gives us access to *all* corridors, not just the ones that previously had infrastructure.

Q7: Nick An (Manatee County): What cost-saving formula or model do you use for the calculation?

A: Shahram Malek (ARCADIS): RITIS provides that for us!

A: Michael Pack (UMD CATT Lab): Here's the methodology:
<https://pda.ritis.org/suite/help/#udc-analysis>

A: Matt Glasser (GDOT): CATT Lab has made it easy – you get on RITIS, select the corridor for study, then generally we compare cost based on that time last year, last month, etc.

Q8: Sanhita Lahiri (VDOT): Have you had the opportunity to synthesize RITIS bottleneck results with ATSPM? If yes, what platform did you use and what would be your feedback?

A: Shahram Malek (ARCADIS): The ATSPM data gives us information about infrastructure. We're not using the ATSPM data to evaluate travel time reliability. We're using ATSPM data to develop and report localized intersection operation. We're using RITIS to evaluate, monitor, and report on corridor operation and travel time reliability. Those are two separate tools providing two separate functions for us.

Q9: Aiden Massahi (FDOT): How did you estimate active traffic signal timing change benefits? Using travel time from RITIS?

A: Shahram Malek (ARCADIS): We used travel time from RITIS and similar methodology to Matt's answer above. We compared old timings vs. new timings in RITIS.

A: Michael Pack (UMD CATT Lab): While not available to GDOT during their study period, there is a brand new set of tools in the PDA Suite that is meant specifically for signal timing analytics. Short write-ups of these tools can be found here:
<https://www.ritis.org/tools#traveltimecomparison>



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Q10: Nick An (Manatee County): For the signal retiming project, have you evaluated accidents before and after the improvement?

A: Shahram Malek (ARCADIS): We have not. The department has asked us to also concentrate on maintaining safety (now that we've already done the low-hanging fruit projects). We previously thought of ourselves (RTOP) as purely an operations program, but we're getting more involved with safety matters. We do look at crash data where we have made strategic changes (the first flashing yellow arrow was deployed as part of the RTOP program). We keep track intersections if we've made major timing or phasing changes.

Q11: Kara Schwartz (FDOT): Is any DOT using RITIS data in place of their traffic counts for volumes or in place of traffic counts all together?

A: Kelly Wells (NCDOT): For volumes, there's a working group in I-95CC trying to decide when probe data will be available to be used for volume or traffic counts. That's happening now. In North Carolina, we used travel times instead of traffic counts for certain locations where we found the travel times were sufficient. We're beginning to use RITIS more and more.

A: Denise Markow (I-95CC): Yes, the Volume and Turning Movement (VTM) project is determining how to establish real-time volumes from probe data. The second phase is how to operationalize (analyze, validate, compare results) that effort.

A: Michael Pack (UMD CATT Lab): There are two new modules in RITIS that were built specifically for signalized performance measures. These tools were discussed in a prior webinar. Here's the link for a description of them:
<https://www.ritis.org/tools#traveltimcomparision>

Q12: Ed Azimi (VDOT): When you suggest corridor improvement, how far back do you analyze the crossing routes and corridor length – timing, etc.?

A: Shahram Malek (ARCADIS): There are three locations we've proposed to eliminate left turns and install Michigan lefts. For those, we look at a cordon that encompasses a larger area than just the intersection and includes other intersections in the area. In other cases, we submit a safety improvement project or an operational improvement project on an intersection-only basis.

RITIS and PDA Suite Feature Questions:

Q13: Christian Matthews (RPC): Is there a documented process to get you updated volumes?

A: Michael Pack (UMD CATT Lab): Yes, you can start here:
<https://npmrds.ritis.org/analytics/help/#data-types/providing-your-volume-data>



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Q14: Matthew Glasser (GDOT): What is the best way for individuals and agencies to request upgrades and enhancements for consideration? We've had a few district offices request a tool to identify location where speeding may be a problem and way to make speed studies quick to conduct.

A: Michael Pack (UMD CATT Lab): Start off by sending an email to support@ritis.org. Send us anything – even a sketch on a piece of paper. We'll reach out to you and set up a meeting or webinar, and go back and forth until we get it right. If it's a big feature, we'll set up a working group to make sure everyone (like other agencies) is onboard before we start working. If you haven't sent a feature request before, it's a fun process – there's a lot of iterations or 'imagineering.' With respect to identifying speeding locations: there is a speed alerting feature within RITIS <https://www.ritis.org/tools#speedalerts>– but it's computationally expensive for us to run and manage. We've only implemented it for one state who paid to have it built. The state that is sponsoring that isn't using the tool for speeding, but for slowdowns to find potential problems on the roadway network. We can certainly discuss that tool during the next user group meeting. Also, some of the data providers are now capping data at the speed limit – so the tool may not necessarily be useful for every state.

Q15: Kelly Wells (NCDOT): Is there an evacuation layer?

A: Michael Pack (UMD CATT Lab): We have evacuation documents from six or seven states. These states provide us detailed information on different evacuation scenarios. Agencies generally provide us PDF documents about how to restrict traffic flow at different intersections – changes to signal phasing, blocking off different approaches, etc. We digitize those and put them directly into the RITIS platform so that they can be recalled quickly and by many people at once. We also have the ability to filter by evacuation scenario. Say you need to evacuate the Whitehouse or Three Mile Island – you can click a button and remove everything else on the map that isn't needed for those evacuation plans. If you go the RITIS map, on the right in the layer list, there's a layer called Evacuation Support – you can turn on seven different layers associated with evacuations. If you turn on the icons for traffic control points, clicking one will bring up the document about how to manage that intersection. On the upper left-hand corner of the map, there's a Scenario filter and you can choose each of the states that we have evacuation documents for and you can find specific scenarios there.

Q16: Diavamani Sivasailam (MWCOC): You may want to mention the FITM plans that reside on RITIS layer which is similar to evacuation routes but limited in geography.

A: Michael Pack (UMD CATT Lab): FITM stands for Freeway Incident Traffic Management plan. When there's at least a 50% closure of lanes on the roadway, suggested FITM plans will automatically pop up within RITIS with detailed information about how to detour people off the interstate and around the incident. The FITMS plan tells you where signs should be placed, how signal timings change, who you need to call, etc. We only have them for VA and MD right now but if your agency has FITM plans (or the equivalent), you can send them to us at support@ritis.org and we can add it.