Note: Results from polling questions asked during this web meeting are at the bottom of the document.

I-24 Smart Corridor: Using RITIS to Build Performance Management Dashboards

Q: **Barry Fradkin (Massachusetts Port Authority):** Does RPA enable you to pull reports using data that is not accessible via the API? Or is it more to capture the RITIS report layouts without needing to do additional data visualizations on the back end?

A: Patrick Jacks (Arcadis): Robotic Process Automation (RPA) can help you pull data that the APIs are currently not able to access. It can also be used to pull data that API offers as well – it can replicate the exact process used to ensure the correct data is pulled by all team members. Regarding visualization, you can train the RPA to only capture the visuals you need, such as a chart.

Note: Jesse Buerk (DVRPC): That answers the question I had when we were preparing for this meeting. You were talking about how RPA helps standardize the process between people and saves time.

Q: **Andrew Nichols (Virginia DOT):** Which RPA software have you found to be the easiest to use?

A: Patrick Jacks (Arcadis): We use Microsoft Power Automate because the agencies we work with already have Microsoft. It is just getting better as technology evolves. In most instances, you can click record and then take that as a baseline. UIPath is another good one. Salesforce has some options out there if you're a Salesforce house. If you have a seasoned Python developer who also can be used to write RPA flows.

Q: **Jesse Buerk (DVRPC):** It sounds like there are many different options out there. Are there good training resources for these tools? It sounds like you don't necessarily need to know a ton of coding to be able to use some of these tools.

A: Patrick Jacks (Arcadis): Exactly, that's the beauty of them. Nowadays there's a huge emphasis on low code/no code. Microsoft Power Automate and UIPath have many resources on their websites that help you work through how to do this. There's a huge community with Python as well that can help you learn to build workflows quickly.

Note: Jesse Buerk (DVRPC): As you become more of a power user in RITIS you end up wanting to generate similar reports again and again which can start to become time-consuming.

A: Patrick Jacks (Arcadis): That's how we started with the RPA. We had these routes, and it was just taking our engineers a good bit of time to go through and download the reports each month. Using RPA we were able to save time and run concurrent reports.

Q: **Michael Pack (University of Maryland CATT Lab):** I'm not familiar with these RPA tools. Is it something that comes with all the other Microsoft products or do you need a license as part of PowerBi?

A: Patrick Jacks (Arcadis): You need a license for these products. You can get it through UiPath or Microsoft.

Q: Michael Pack (University of Maryland CATT Lab): If one person had a license could they just run hundreds and hundreds of queries?

A: Patrick Jacks (Arcadis): There are no threshold limits from a Microsoft perspective. I don't know if UIPath has thresholds.

Q: Michael Pack (University of Maryland CATT Lab): Is it something where you schedule these jobs, and they happen in the cloud? Do you have to have your computer on and the software running for the processes to occur?

A: Patrick Jacks (Arcadis): Yes and no. Certain tests can run in the cloud (Cloud flows). A lot of the RPA functions involve hardware that needs to run on a local or virtual machine. We have a virtual environment that we run these flows on. That way it's not tied to one computer.

Q: **Rob Pangborn (Maryland Transportation Authority):** Would this tool work well with complex date selection when running analysis in RITIS? For example, “All Mondays past 4 weeks for 2024, 2023, and 2022”.

A: Patrick Jacks (Arcadis): Within an RPA, in addition to setting up the process, you can also set up variables and functions in the workflow and you can put it on an interface. For example, you can run a report for the Tuesdays of every month. It would take some work on your end to write the function to calculate the formula which can be done within the workflow. What that formula outputs to the workflow will depend on what it goes and clicks on. You can use variables and different functions inside of the RPA workflow to calculate the dates that you're looking for. You can also repeat the same process on a different road.

Status of Enhancements & Major Updates to RITIS Tools

Q: **Kim Samson (AECOM):** Are there any enhancements planned that can isolate queries to congestion in the absence of weather events?

A: Michael Pack (University of Maryland CATT Lab): Using the Causes of Congestion tool, you can select an individual corridor, county, zip code, or state, choose a date range and it will tell you of all the congestion that's occurred and the type of congestion, weather, crashes, etc. It does not allow you to go back and draw congestion scans of the roads, you have to do that manually. If you want to write to me separately or call me then we can talk more about what you're looking for and try to help you out.

Q: **Dave Adams (Pennsylvania DOT):** I had a few suggestions on some potential improvements. For context, we had an I95 closure related to what we call the I-95 Cap Project. We sent updates to our executive management on how long people were in a queue before the closure point. I just came up with a couple of good ideas. Who do I contact?

A: Michael Pack (University of Maryland CATT Lab): Thank you for speaking up. Let's set up a separate call with my team. We'll try to figure out what we could do immediately or what might take some extra work to do. We can coordinate with Bob Frey and the Product Enhancement Working Group to see if this is something that we can move forward with as a group or if it needs to be addressed separately.

Note: Jesse Buerk (DVRPC): Dave works in my area In PennDOT District 6 in the Philadelphia region. The capping project is a great case study to explore different things as we know the specific dates of the closures. Dave if you want to reach out to me too, I can help coordinate analysis and discussion with the CATT Lab/Coalition staff.

Q: **Craig Casper (Corpus Christi MPO):** Does the police crash data include severity? (K: Fatal injury, A: Incapacitating injury, other designations on the KABCO scale)?

A: Doug Warner (University of Maryland CATT Lab): It depends on the data from each state. There's inconsistency in the data between states.

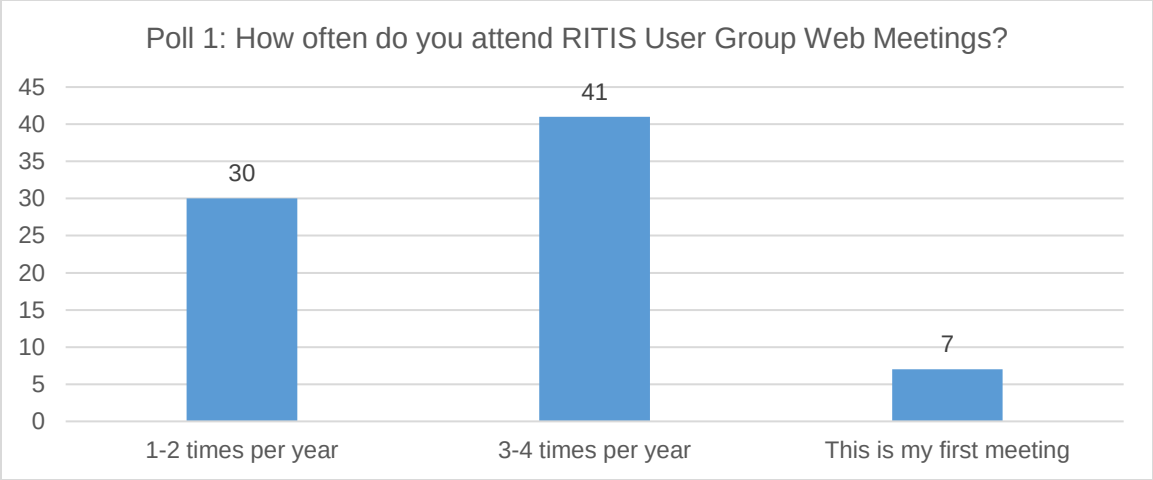
We are interested in all crash data sources. Because each state has so many differences (e.g. some states don't include crash locations or dates!) It takes us a bit of time to massage the data into something we can put into our database for the tool to use.

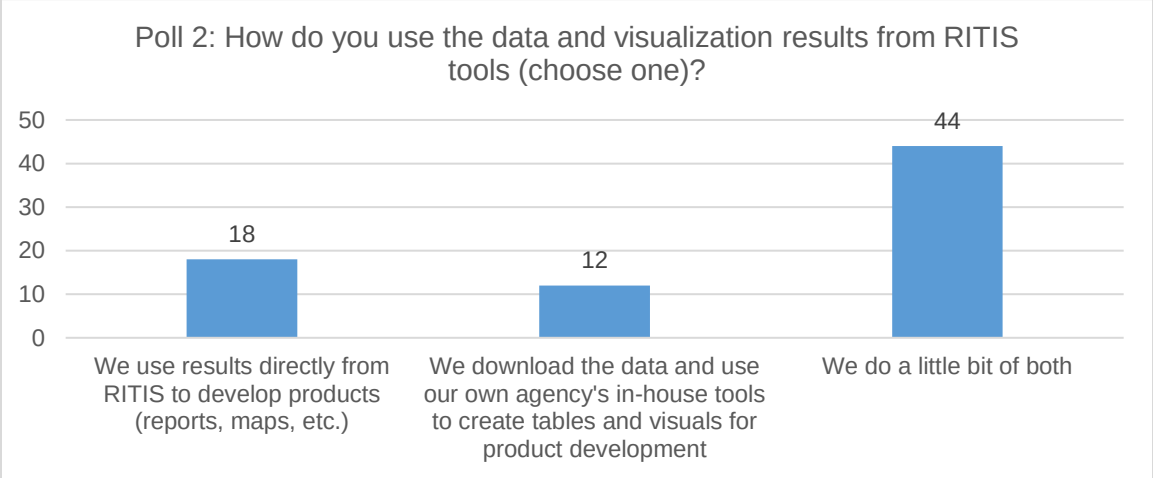
Q: Ben Chaney (Oregon DOT): Some states don't include dates. That is quite surprising.

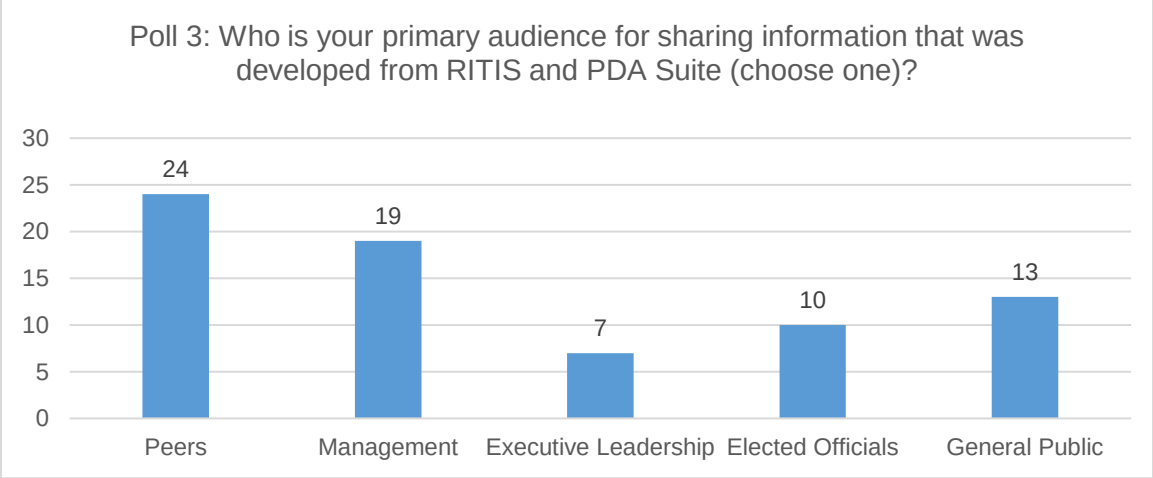
A: Doug Warner (University of Maryland CATT Lab): I have been surprised by what is missing from various crash data feeds.

A: Michael Pack (University of Maryland CATT Lab): We're working on making sure the tools can handle the data that is provided. Depending on the data, RITIS can show the severity of the crash, the number of injuries, and passenger placement in the car. But we can only show what we have. One issue we've been having is that some agencies are sending us their police crash data in a form that is made publicly available, so it's limited. If agencies could send the raw, full data, that would be very helpful.

Note: **Ben Chaney (Oregon DOT):** Thanks CATT Lab team for all your help recently as ODOT added our police crash data and transit data to the platform!


Poll 1: How often do you attend RITIS User Group Web Meetings?
45
40
35
30
25
20
15
10
5
0
30
41
7
1-2 times per year
3-4 times per year
This is my first meeting


Poll 2: How do you use the data and visualization results from RITIS tools (choose one)?
50
40
30
20
10
0
18
12
44
We use results directly from RITIS to develop products (reports, maps, etc.)
We download the data and use our own agency's in-house tools to create tables and visuals for product development
We do a little bit of both


Poll 3: Who is your primary audience for sharing information that was developed from RITIS and PDA Suite (choose one)?
30
25
20
15
10
5
0
24
19
7
10
13
Peers
Management
Executive Leadership
Elected Officials
General Public