

What Niagara Analytics Can Do For You

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Q&A

- 1. Can you explain the order of operations for an algorithm? From DataSource to Result, how does the raw history data get processed? It seems there are data source-level rollups and result-level rollups.**

Left to Right. If there is a Rollup needed within the algorithm, it will do that prior to the next part of the algorithm.

- 2. How is this any different than doing logic in kitcontrol to compare and do the same calculations?**

Using kitControl wiresheet logic typically requires duplicating logic in many locations. With analytics you can develop one instance of the logic and get the results in many places.

- 3. What is the application scope of Alerts?**

Alerts are designed to run algorithms against components in the station which raise awareness of fault detection issues. They can also be configured to generate alarm records and route alarm events.

- 4. Are there ways of using Alerts apart from Alarms?**

Yes, you can attach an alarm to an alert to notify that it's found something.

- 5. How do you bring in last year's data? Is it dynamic or static data filled from last years' numbers?**

When analytic algorithms query historical data you can use time range offset blocks to read and compare period over period values.

- 6. How do you depict whether to use the point current value or the point history tag?**

If an analytic request does not specify a time range, the request only uses the current value. If the request specifies a time range, the request uses the historical data.

- 7. Are data definitions necessary?**

Data definitions are optional. They allow specifying things such as facets, data interpolation, etc. at a global level instead of having to specify in each algorithm or binding.

- 8. What is the name of the block - value not changed in past 30 sec?**

CovSwitch (Change of Value) located in the Switch Blocks in the Analytic Palette.

9. For the VAV damper algorithm, does the algorithm use a history that has 1 sec records or does it hold the last 30 seconds another way?

I was using it without a history, If a history is present, it will use the timescale provide in the history. It's based on Change of Value, it will look back into the history and determine if the value changed.

10. Are there any limitations for maximum number of analytics points that can be done on this? As part of Energy analysis, I want to analyze the Energy for about 6000 Racks in Data center?

Niagara analytics is sold in blocks of points, so you would need to make sure you purchased a license for the number of points you want to analyze. You can purchase an unlimited supervisor license for even larger enterprise environments.

11. When you use aggregation on multiple points (solar example), what is the count of analytics points used? One or as many as solar points/banks?

From an analytic point license perspective, any control point in the station which is used in a calculation must have an a:a marker tag assigned. Each control point used in a calculation is counted towards the license limit. The analytic service property sheet lists how many control points are used by the service.

12. How much "maintenance" is typically needed if implementing this into a building? Obviously there are a lot of variables but is there a basic expectation? Daily checkups, weekly?

That's the beauty of Niagara Analytics tools, you can build autonomous algorithms, that alert you when they find what you were looking for. Even better, you can build the algorithm, and then build logic to automatic adjust for what it found.

13. Is there an analytic chart/graph available for comparison between current value verses Baseline Value? Can we export data from the analytic chart?

Some of the analytic charts/reports in the analytic palette include a feature to plot base line. Otherwise you can build an algorithm to offset the data request to display a baseline in a standard web chart.

14. Can you create a multipoint comparison? As an example, can I compare the output of the solar panels to the sun intensity so that as the solar banks become dirty the system notifies of the degradation in efficiency?

Yes, Niagara analytics has the capability to look at information as a group or individually. You could put history on the output and then see how it is affected over time.

15. How can I create a point that sources its data from an IoT sensor outside of Niagara?

You would need to get the data into Niagara through a driver, file import or some other mechanism.

16. How can I collect boiler on/off status from a historical trend and calculate the total time on for month and year?

I'm sure you can, I'll need to figure that out and add it as an example to my station ☺

17. Is there a way to send automated analytic reports to your email? (ex. sending a monthly report)

Yes, you can design a report using analytic proxy points, and then configure Niagara to send it at predetermined time. Analytics charts and tables be included in the px report exports.

18. How much CPU/memory is needed to avoid bringing supervisor system to a crawl? That's a question that I can't answer. My example during the webinar, is that you need to be careful with how many items you put into an analytic poller at any given rate. The example was I put 2000 requests into a que at 15 seconds. The analytics poller folder, shows this condition, I just did not realize what I was doing.

19. If I have site with 500 temperature sensors and monitoring upper and lower temp conditions, how visually will it bring the alarm conditions?

This is part of the Magic with Niagara, how does the customer want to see them? A list, a Map, a warning when it's out of range? All can be accomplished.

20. We have Enphase system for solar PV. Can this system can be integrated to Niagara?

I could not find any information on the Enphase site that states if any of their products use BACNet or Modbus protocols. This might be a proprietary system to lock you into their services.

21. For streaming data, would you recommend I investigate the driver path first?

If there are no histories, just the real time stream, Niagara analytics still works, you just need to understand the data prior to creating quarry's or algorithms.