**TRIDIUM**

# connecting minds
# and machines™

For more than 15 years, Tridium has led the world in business application frameworks—advancing truly open environments that harness the power of the Internet of Things. Our products allow diverse monitoring, control and automation systems to communicate and collaborate in buildings, data centers, manufacturing systems, smart cities and more. We create smarter, safer and more efficient enterprises and communities—bringing intelligence and connectivity to the network edge and back.

## Discover and mitigate the operational issues holding back your business

Niagara Analytics is available through a wide variety of original equipment manufacturers. Our open distribution business model and open protocol support allow a vendor-neutral application compatible with devices and systems throughout the world.

To learn more about how to purchase, install and start using Niagara Analytics, or if you are an original equipment manufacturer and would like to add Niagara Analytics to your suite of offerings, please contact us.

**TRIDIUM**

tridium.com

**Locations and customer support, worldwide**

| **Headquarters** | **Support** | | |
|---|---|---|---|
| North America | North America & Latin America | Europe, Middle East & Africa | Asia Pacific |
| 1 804 747 4771 | 1 877 305 1745 | 44 1403 740290 | 8610 5669 7148 |

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data-driven
performance

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TRIDIUM

# take control
# of your data

**KNOW MORE**

As the industry's first truly open software platform, the Niagara Framework® helps users connect and control disparate devices and systems, and harness the power of the Internet of Things. Through the advanced arsenal of tools found in our next-generation Niagara 4, users have gained unprecedented operational insight.

**DO MORE WITH WHAT YOU KNOW**

Niagara Analytics takes the robust analytics capabilities of Niagara 4 to a whole new level. Fully compatible with Niagara 4, Niagara Analytics Framework gives you the real-time business intelligence you need to make smarter, swifter decisions and improve operations with less time, less work, less waste and less expense.

**HOW IT WORKS**

As your devices and systems communicate with each other, they generate data. Niagara Analytics gives that data power by simplifying the implementation of advanced analytic algorithms. Those algorithms can proactively identify problems and provide more contextual information so you can mitigate the issue at both the local and enterprise levels. Because the analytics rules can be configured to run based on your needs, corrective actions often can be implemented automatically without requiring the intervention of skilled personnel.

Niagara Analytics can be utilized locally using real-time data in an embedded controller for energy optimization, or for data analysis using historical information you've already saved, making your staff more effective and your buildings more efficient. As soon as Niagara Analytics is installed, you can simply drop in an algorithm from the library, update the algorithm data source tags to match your application tags and run reports.

Because our technology is open, it's effectively agnostic. You can run Niagara Analytics for a variety of applications and industries, including energy, manufacturing, data centers and more.

Our advanced analytics require no special programming skills, and our open API supports third-party apps. And, as always, your business is backed by a global community of certified Niagara developers and system integrators available for support before, during and after implementation.

## key advantages

**INTEGRATED NIAGARA APPLICATION**
- Design time reduction by leveraging Niagara 4 histories, hierarchies and tags

**DEFINED BASE ALGORITHMS LIBRARY**
- Variety of predefined algorithms provided
- Building blocks for custom algorithms

**INTUITIVE PROGRAMMING**
- Familiar Niagara Framework wiresheet programming

**REAL-TIME, ON-PREMISE ANALYTIC CONTROL**
- Full analytics functionality on embedded controllers such as JACE® 8000s
- Supports real-time energy optimization

**AUTOMATED CONTROL STRATEGIES**
- Advanced alarming
- Fault detection and diagnostics (FDD)

**POWERFUL VISUALIZATIONS**
- HTML5-based
- User-specific dashboards

# move from reactive to proactive

## NIAGARA 4 DATA MODEL

Typical analytics applications require designers to spend a large percentage of their time creating a data model before beginning the actual analytics application. Because a Niagara 4 application most likely has the data model designed as part of the end-user navigation, designers can usually skip the data modeling phase completely and go right to building an effective analytics solution. Niagara Analytics leverages Niagara 4 tagging and hierarchies—including Niagara 4 dictionaries such as Haystack—thus establishing a common data model. Niagara Analytics uses Niagara histories, so no external database configuration is required.

## DEFINED BASE ALGORITHMS LIBRARY

With Niagara Analytics, you never have to repeat the same effort. Our algorithm library has a wide range of predefined algorithms that can be customized and extended to meet the specific needs of the deployment. We also provide more than 40 functional and mathematical blocks to help you design and create your own custom algorithms, or modify as needed. Use your algorithm to evaluate a single piece of equipment or all pieces of equipment in your enterprise, then save your entire analytics operation as a template and redeploy as often as needed.

## INTUITIVE PROGRAMMING

Niagara Analytics uses the same approach to programming as the Niagara Framework, making it easy to use immediately, without the learning curve of mastering a new programming language. Users can drag and drop function blocks onto the wiresheet from a comprehensive Niagara Analytics palette.

## REAL-TIME, ON-PREMISE ANALYTIC CONTROL

Now you can run on-site analytics directly on an embedded controller such as the JACE 8000 to identify a situation and make an immediate change in real time. This enables you to make faster decisions while conserving computing power. Results can then be pushed up to the server to make changes across the enterprise.

## AUTOMATED CONTROL STRATEGIES

Niagara Analytics makes data work for you, not the other way around. Advanced alarming can collect data from multiple real-time data sources and make intelligent decisions based on custom algorithms, thus providing a more sophisticated off-normal analysis. This process can eliminate many end-user nuisance alarms. FDD determines when equipment and systems need servicing based on their actual condition, rather than a scheduled date.

## POWERFUL VISUALIZATION

With enhanced HTML5 visualization, interpreting and organizing information is easier than ever. Niagara Analytics lets you chart analytical points, alerts and algorithm outputs visually. Choose from a robust library of standard reports or use widgets to build custom dashboards and reports on anything from energy usage to cost ranking to equipment operation.
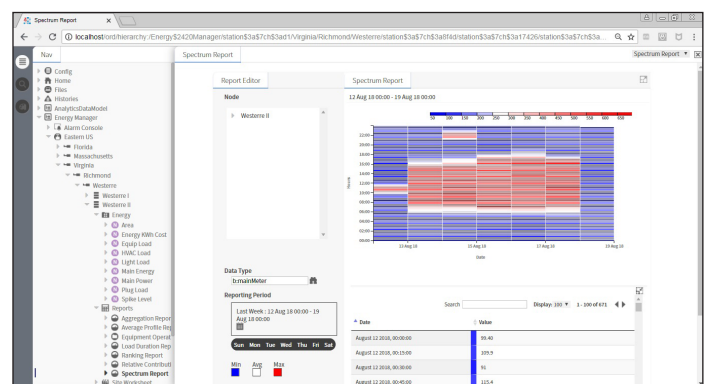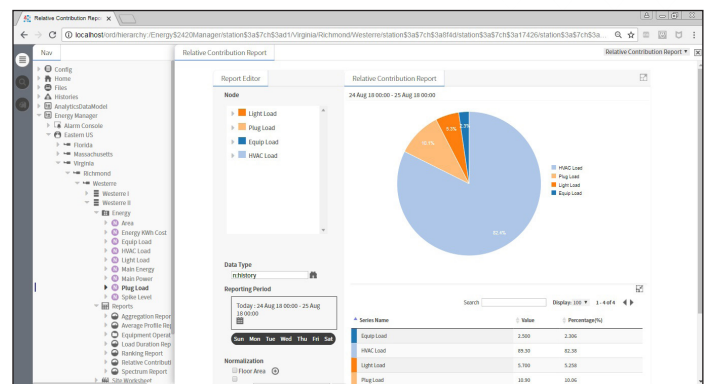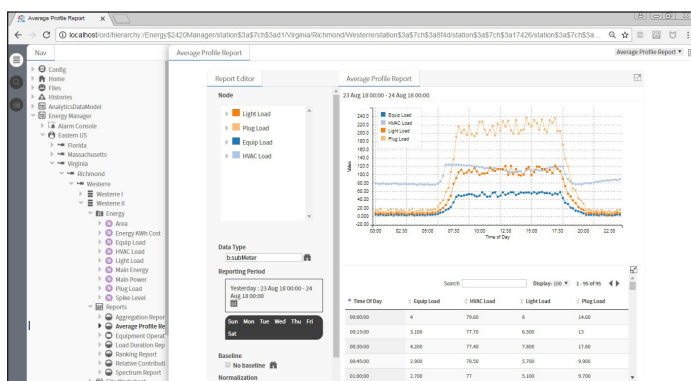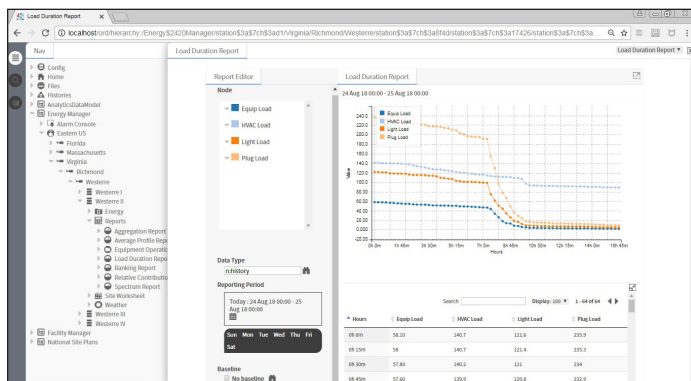




*Identify data anomalies and increase efficiencies*