

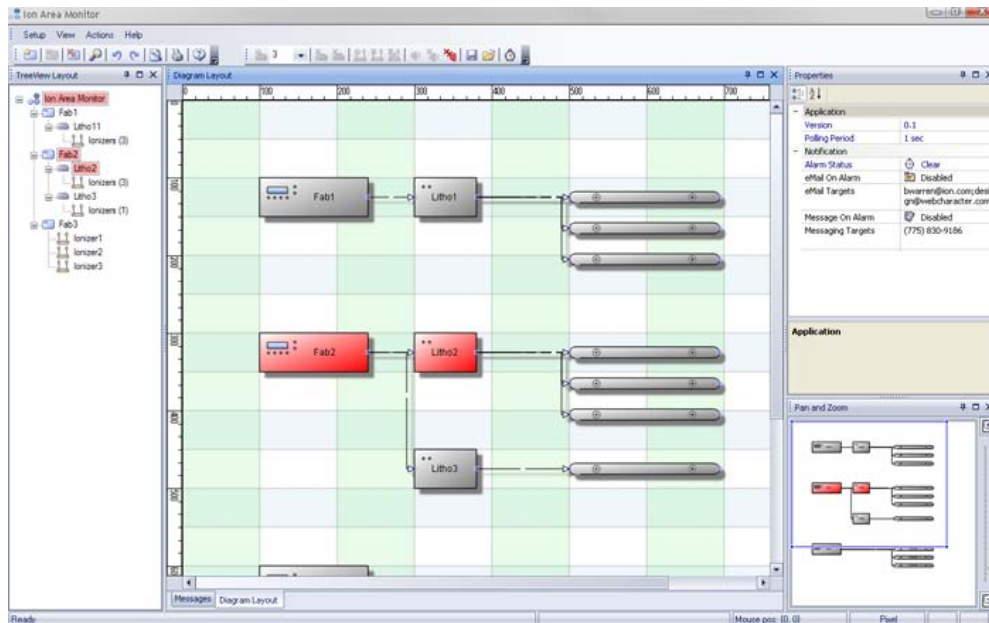
Nevron Diagram component fulfilled all our use case requirements and much more. As we worked with the trial version, we were very impressed by the clear C# API



MKS, ION Systems® is the leader in ionization and monitoring products for many electronics (semiconductor, HDD, medical device, life sciences, etc) and industrial markets. MKS, ION Systems® products provide turnkey solutions to monitor, analyze, and control electrostatic charge and discharge. This is critical for environments where products are sensitive to electrostatic charge, discharge, particle attraction, electromagnetic interference and other ESD-related issues. In clean rooms and sensitive manufacturing facilities, our ionizers and monitoring products detect and help improve the process environment by detecting field (voltage), electrostatic attraction (ESA), electromagnetic interference (EMI) caused by ESD, radio frequency interference (RFI) and ground noise.

Project Industry: Flat-panel fabrication

Project Type: Desktop application



AreaMonitor was developed to overcome a setup and monitoring problem for ceiling emitter ionizers. Large fabrication installations could have hundreds of ionizers distributed in several buildings. These ionizers need continuous monitoring -- a malfunction could cost tens of thousands of dollars in a very short period.

The ionizers have individual addresses on their communication network. It is easy for the monitoring software to detect the address of a malfunctioning ionizer. However, there is no inherent knowledge of the physical location. When an ionizer malfunctions, the clock begins ticking.

Early installations required the setup engineer to manually draw layouts of the ionizer locations, and note the electronic addresses for each physical position. The process was long, tedious, and error-prone. When the monitoring software indicated an ionizer in alarm, the support engineer had to find the drawings, and then sort through them to find the location of the failing ionizer, all under the pressure of the falling yields of the fab.

The Nevron Diagram component solved this problem. Now the physical locations of the ionizers are part of the monitor software. The failing ionizer is highlight in red, and the support engineer can quickly go directly to the ionizer location. An added bonus of using the Nevron Diagram is that it became much easier to diagram the ionizer locations in the first place. This shortened the setup time and improved the reliability -- especially when we were able to add software checks to the diagram inputs.

An added benefit of using the Nevron dotNet Vision suite was the beautiful UI controls. It was easy to choose a theme which reflected our company brand. The ease of use and the professional look-and-feel of the GUI made us comfortable in releasing this software to the customer, instead of reserving it for Ion's support engineers. This further reduced our setup costs and allowed the customer more control for the systems it had purchased.

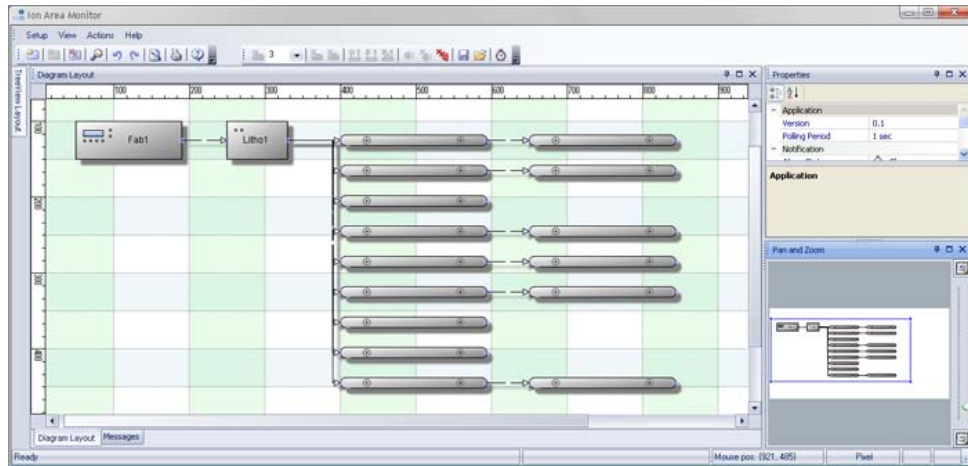
Our experience with Nevron

We initially chose to evaluate Nevron because their Diagram component fulfilled all our use case requirements and much more. As we worked with the trial version, we were very impressed by the clear C# API, the complete functionality, and that everything worked as we expected. After designing our first project with the Nevron suite, we were most impressed with these benefits of using the Nevron suite:



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Ease of development -- all the Nevron diagram functionality is demonstrated in a complete example solution. We spent our first hours with the example matching our requirements to the code snippets. Then we worked with all the other features, and chose additional functionality to expand our offering. One of the most important features was the Pan and Zoom control. All the functionality of this high-level control and synchronization with the main chart was accomplished with just a few lines of code.

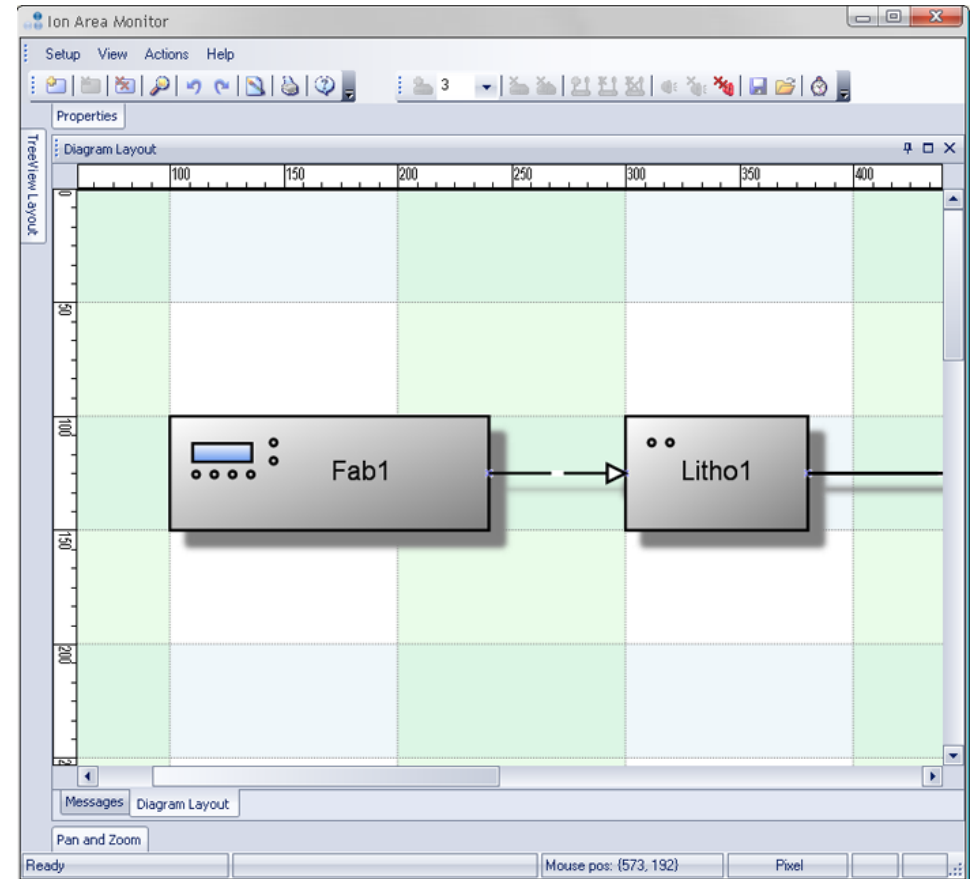


Using the Nevron code, we were able to generate a complete mockup of AreaMonitor in 10 days, a small part of the 6 month completion schedule.

Professional appearance and workflow -- as we designed the workflow, we came to the design accustomed to the best diagramming programs from schematic capture applications and presentation software. The Nevron Diagram behavior fit right into our expectations, and let us customize those behaviors to fine-tune a match to our particular product.

Our screenshot shows the elements which are generated dynamically in Diagram. It was easy to make them match what the actual components look like, without a performance hit. We can generate and display hundreds of these components within a second on a standard-spec machine.

Reliability -- Nevron diagram uses a very intuitive object model that fit well into the object-oriented architecture of our project. We spent very little time dealing with problems in the control itself -- we could see that the components were well-tested and mature. When we did have questions, Nevron's support engineers were quick to respond and very knowledgeable.



Summary

We are very pleased with our choice of the Nevron dotNet Vision suite and its performance in AreaMonitor. As our company moves from desktop to web products we see that Nevron already has the web-based components ready. We are confident designing Nevron into our future Diagram and GUI projects. Nevron Chart control is also used from the MKS, ION Systems® marketing group and their ION Charging Generator sales tool.

MKS, Ion Systems

<http://www.ion.com/>

<http://www.mksinst.com/product/catalog.aspx?catalogID=10>

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