



 ALTAIR

INTERNET OF THINGS

altair.com/IoT

Altair SmartWorks is a powerful collection of web services and analytics tools for engineers who want to quickly develop scalable, secure IoT systems. Our toolset can help you deploy edge compute clusters, train and execute machine learning models, implement complex application business logic, build apps, visualize real time data, and much more. We give you the building blocks to get moving fast, scale quickly, and continue to improve over time.

DEVICE MANAGEMENT

Altair's device management provides optimized workflows for connecting to thousands of devices, creating virtual representations of those devices, and then organizing them into logical groups. Spend less time on busy work - instead, accelerate your provisioning process so you can focus on providing the best possible experience to your customers.



EDGE ORCHESTRATION

Edge application orchestration can be a complex, nuanced problem - edge compute loads encounter complications ranging from uncommunicative devices, to specialized target hardware requiring specific builds, to mission critical applications running out of hardware resources. Edge orchestration provides a powerful platform for managing these nuances so that you can build automation and execute logic close to devices. For you, that means reduced latency, saving on data transfer costs, and new, powerful intelligence where you need it most.



DATA STORAGE

Devices create a lot of data – ten thousand devices reporting just a few times a minute can create terabytes of data every month. Altair’s data storage solutions are optimized to efficiently, appropriately, and securely manage data from your devices so that you can extract the right insights at the right time.



DATA PREP AND MACHINE LEARNING

Altair’s data prep and machine learning tools enable you to extract actionable information from your real-time and historical data sources in a code-free, secure environment. Our extensible platform supports automated data discovery, data transformation, machine learning, and visualization. Make accurate predictions about component life, replacement requirements, energy use, maintenance, utilization, and other factors that directly impact quality, sales, customer acceptance, and efficiency. Never has it been easier to streamline operations or improve product performance

STREAM PROCESSING

Raw data from machines can be surprisingly unhelpful. Sometimes inscrutable, rarely where they need to be, and data from one network are almost never formatted the same as another. Altair’s stream processing solutions help you solve these problems using a drag-and-drop interface and as little code as you want. With stream processing, you can transform and join data streams, add calculated columns, execute machine learning models, send alerts, convert values, and connect to dozens of different sources or destinations all on live, streaming data.



REAL-TIME DASHBOARDS

Truly real-time visualization is hard to come by. Many dashboard tools claim real-time capabilities, but they fail when put to the test. Altair's real-time dashboards are different. We offer down-to-the-second, automatically updating charts complete with anomaly detection and user feedback functions. We built this offering to be truly real-time and embeddable from the ground up, which means you can see the data how you want, where you want, and fast enough to act quickly.



EMBEDDED DEVELOPMENT ENVIRONMENT

Embedded development for IoT has many unique considerations – peripheral programming, distinctive communication protocols, battery life awareness, over-the-air (OTA) updates, and tough security – but Altair Embed® addresses each of these concerns. Built-in support for easy cloud or device communication, battery state-of-charge (SOC) and state-of-health (SOH) tracking, battery charge optimization, secure OTA firmware updates, and encrypted data transmission. It helps you iterate your code fast, improve system efficiency, and reduce the embedded system attack surface. With Embed, you can be confident your embedded system is production-ready.

Learn how Altair can help you
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Build Smarter Products

Better product-market fit, recurring revenue, and faster time to market are all within reach with IoT from Altair.

Meet Your Industry 4.0 Goals

Altair's huge set of applications bring value across product ideation, design, validation, optimization, manufacturing, production, and in-field operation

Realize Digital Twins

Altair offers a unique blend of machine learning techniques and physics simulation to create a digital copy of a product in the real world.



DISCOVER HOW ALTAIR CAN REVOLUTIONIZE YOUR APPROACH TO INNOVATION

Altair pioneered a patented, units-based, subscription licensing model for software which has transformed the way our customers streamline product innovation and get to market faster. Customers have full access to all our software instantly, including more than 150 partner products, and can run these applications on-demand locally or in the cloud. Packaged as a comprehensive set of applications, our units-based structure is scalable, shareable, and more cost effective than obtaining individual licenses.



POOL OF UNITS

Users draw units from the pool to access multiple products, across any location.

CHOICE OF APPLICATION


Maximizing software dollars through the flexibility of choice.



FREEDOM TO USE HOWEVER NEEDED

Best of all, you can maintain your license and run workloads anywhere your team's infrastructure is located, on your workstations, servers and HPC resources that are on premises, in the cloud or in a hybrid environment.





Altair is a global technology company that provides software and cloud solutions in the areas of data analytics, product development, and high-performance computing (HPC). Altair enables organizations across broad industry segments to compete more effectively in a connected world while creating a more sustainable future.

To learn more, please visit [altair.com](https://www.altair.com)



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