



CSense 6.0 from GE Digital

Industrial analytics software that optimizes asset and process performance

Turn raw data into real-time value

CSense 6.0 from GE Digital is proven analytics software that turns raw data into rapid business value. This software allows engineers and data scientists to analyze, troubleshoot, predict, and optimize asset and process performance in real time. CSense provides the capability to mine insight from historical data. This allows you to rapidly develop, test, and deploy simple calculations, predictive analytics, and optimization and control. With CSense, you can reduce variability and optimize asset throughput, yield, quality, and efficiency.

Outcomes

- Deploy solutions that improve asset and process throughput, yield, quality, and efficiency by significant margins
- Mine new insight from industrial data to maximize return on assets
- Use data to troubleshoot causes of asset and process performance issues rapidly
- Increase engineering productivity with visual analytics
- Monitor and ensure health and performance of base-layer PID control loops
- Validate and clean raw sensor data at the source to ensure integrity of downstream systems

01 Mine new insight from data

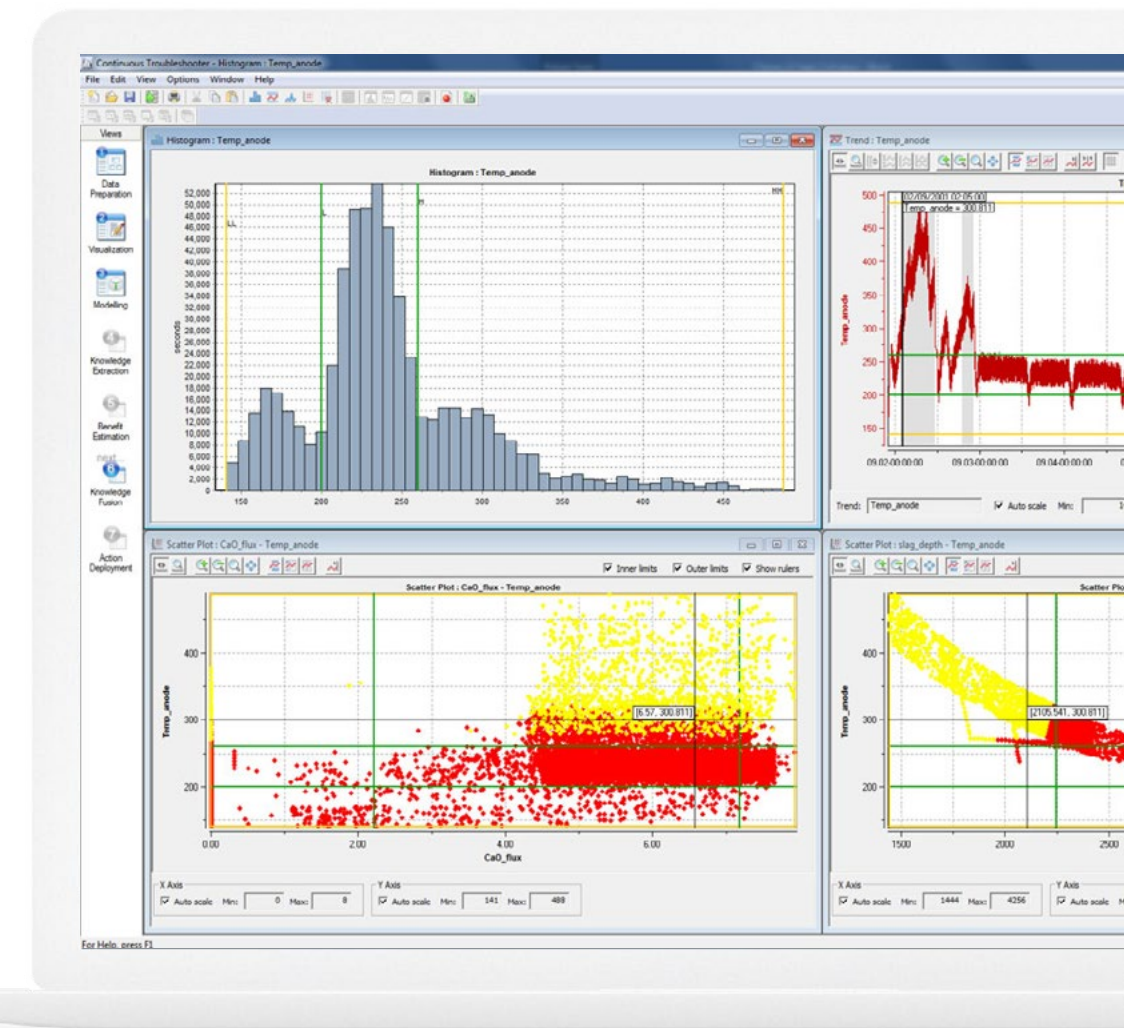
CSense Troubleshooter enables engineers to rapidly troubleshoot continuous, discrete, or batch manufacturing process performance by mining insight from available sensor and production data. Seamless connectivity, rich visualization, and predictive analytics enable users to analyze operating scenarios, quantifying the impact that operational changes will have on key performance metrics and identifying causes for performance variation.

02 Improve production throughput, yield, quality, and efficiency

CSense Architect enables engineers to rapidly develop analytic solutions that typically improve production throughput, yield, quality, and efficiency with significant margin. A comprehensive solution-development environment provides visual analytic building blocks. This allows users to build and test calculations, predictive analytics, and real-time optimization and control. Solutions are enhanced with real-time and historical data sources and drag-and-drop access to rich functional libraries. Solutions are saved as reusable templates for easy deployment to similar assets or process units and permanently deployed into production using the CSense Action Object Manager.

03 Enhance engineering productivity

CSense Architect allows engineers to more easily capture expert knowledge and best practices—combined with insight mined from data with CSense Troubleshooter—into high-value analytic templates for rapid enterprise-wide deployment. Visual drag-and-drop analytics accelerate time to value and reduce dependence on data scientists and lower-level programmers. And the CSense Virtual Campus interactive training course enables rapid mastery of the software with easy-to-follow demonstrations, guided simulations, and practical exercises.



Mine insight from data and causes of performance variation faster with CSense.

“Some systems are just too complex and have too many variables for operators to run optimally. That’s when we need the help of dedicated advanced-control intelligence that can deal with the complexities of our unique problems.”

Tim Spandiel, Impala BMR Manager





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Features

- Supports full Industrial Internet of Things (IIoT) value journey including simple calculations, predictive machine-learning models, real-time optimization, and advanced control algorithms
- Plug-and-play connectivity to historical and real-time data sources and automation systems
- Rapid wizard-driven data mining for engineers for fast time-to-insight
- Built-in support for data quality to make real-time data cleaning and validation easy
- Comprehensive platform to develop, integrate, test, and deploy real-time analytic solutions
- Easy visual drag-and-drop functional blocks for subject matter experts and engineers; examples include simple calculations, data cleaning, math, statistics, machine-learning models, real-time optimization, and advanced process control, enabling the building of rich analytic solution templates with no required programming
- Data scientists and programmers have access to popular script languages and CSense SDK for powerful analytic solutions with plug-and-play incorporation of Python, Matlab, and 3rd party .Net content

Hardware requirements

- 5 GB available hard drive space
- 1GB RAM (recommended: 4GB or more and should be increased as solution size increases to ensure optimal performance)
- CPU
 - x86 Processor: 1.0 GHz
 - x64 Processor: 1.4 GHz
 - Recommended: 2.0 GHz or faster
 - 1024x768 display resolution

Licensing

CSense is licensed into three editions:

- Troubleshooter Edition—for offline, adhoc, and on-demand data analysis, process modelling, and troubleshooting. The Troubleshooter Edition includes the Continuous and Discrete & Batch Troubleshooters, along with all data connectors and the Virtual Campus training course.
- Run-time Edition—for permanent production, deployment, and management of analytic solutions. It includes Run-time Action Object Services and Virtual Campus training course.
- Developer Edition—for data analysis and analytic solution development and testing. The Developer Edition includes both the Continuous and Discrete & Batch Troubleshooters, Architect, Run-time Action Object components for solution development and testing purposes only, and the Virtual Campus training course.

Software requirements

- Microsoft Windows 7 (x86 and x64 Platforms)
- Microsoft Windows Server 2008 (x86 and x64 Platforms)
- Microsoft Windows Server 2008 R2 (x64 Platforms)
- Microsoft Windows Server 2012 R2
- Microsoft Windows 8.1 (x86 and x64 Platforms)
- Microsoft .NET 4.5
- Microsoft SQL Server 2008 R2 or 2012 (SQL Express editions are also supported, although not recommended for production environments)
- Adobe Flash Player 16 (required for CSense Virtual Campus)
- Adobe Acrobat Reader XI (required for CSense Virtual Campus)

The CSense Virtual Campus interactive software training course is included with all editions of CSense, enabling you to simply toggle between the training activities and the software products.

Hardware and software requirements are representative and may vary by customer deployment. Please consult the product documentation for more details.



Visual drag-and-drop analytic development provides rapid time-to-value for engineers and data scientists

Get maximum value out of data and optimize the performance of industrial assets with CSense analytics software.

LEARN MORE



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Services

In the world of Industrial Internet of Things (IIoT), organizations are able to optimize productivity, reduce costs, and achieve operational excellence. While this is an exciting time for opportunity and growth, it can also bring on new challenges, questions, and uncertainty. No matter where you are on your IIoT journey, GE Digital has the right services offering for you.

[Advisory Services](#) We can help you plan and start your IIoT journey in a way that aligns to your specific business outcomes.

[Managed Services](#) We can help you maintain your critical machines from one of our remote locations around the world using model-based predictive-analytic technology.

[Implementation Services](#) Our team will help develop a collaborative, multi-generational plan that will marry your existing investments to the right process enhancements and technology.

[Education Services](#) We specialize in education services to ensure that you're leveraging our solutions to the fullest extent with our training and certificate programs.

[GlobalCare Support Services](#) Let us help by ensuring that your business continues to operate at its highest efficiency, all while mitigating risks to your investments.

[Wurldtech Security Services](#) Our solutions provide industrial-grade security for a wide range of OT network and application topologies.

Related products

GE Digital's [Asset Performance Management](#) suite helps you move from reactive to proactive maintenance to reduce unplanned downtime, minimize maintenance costs, improve efficiency, and extend asset life.



PREDIX

[Historian](#) →

Optimize asset and plant performance through time-series industrial data collection and aggregation, leveraging Predix IIoT connectivity.

[Machine & Equipment Health](#) →

Get a unified view of operations—anytime and anywhere.

[Predix](#) →

Innovate and transform your business with the cloud-based operating system for the Industrial Internet, purpose-built for industry.

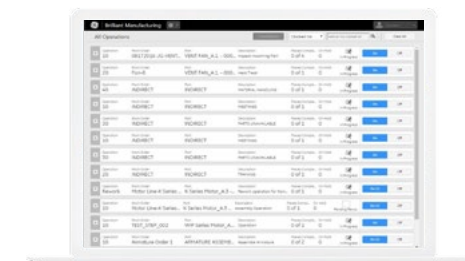
Continue your IIoT journey

Transforming your business requires innovative foundational solutions that lay the groundwork for optimized performance.



[HMI and SCADA](#) →

Precisely monitor, control, and visualize every aspect of your operations for intelligent control, enabling operators to make the best decisions faster.



[Brilliant Manufacturing](#) →

Digitize your manufacturing plant or factory to get insights that unlock unprecedented efficiencies and process optimization.

About GE

GE (NYSE: GE) is the world's Digital Industrial Company, transforming industry with software-defined machines and solutions that are connected, responsive and predictive. GE is organized around a global exchange of knowledge, the "GE Store," through which each business shares and accesses the same technology, markets, structure and intellect. Each invention further fuels innovation and application across our industrial sectors. With people, services, technology and scale, GE delivers better outcomes for customers by speaking the language of industry.

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