

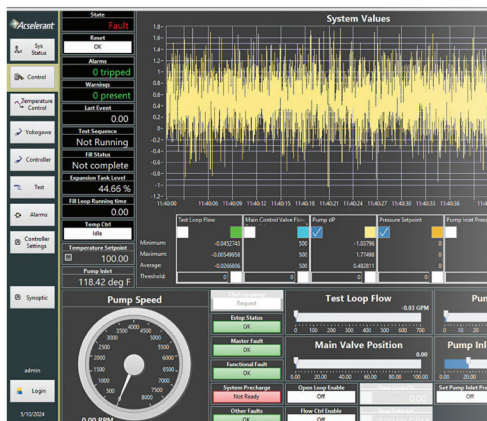


Software Built for Complex Testing Environments.

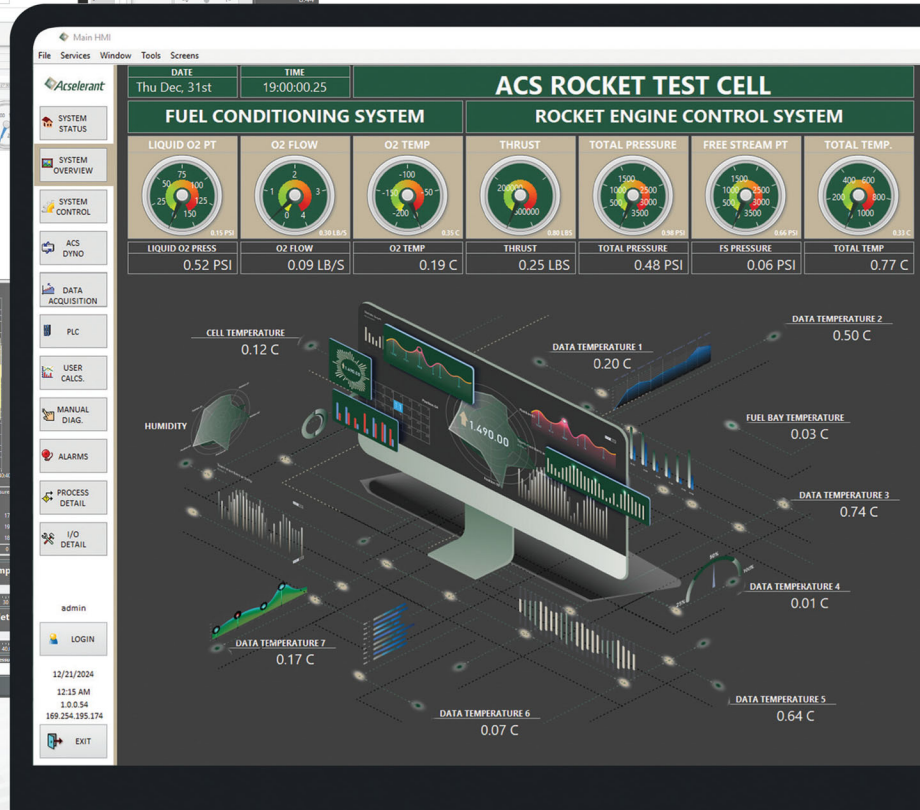
ADAPTABLE



SCALABLE



RELIABLE





Accelerant™ is a flexible, modular software platform designed for seamless real-time data acquisition and control in industrial systems. Built with an open architecture, it empowers test engineers and lab managers to customize and scale their systems with ease—both at launch and as needs evolve. With precision, reliability, and adaptability, Accelerant simplifies managing complex testing environments while unlocking unparalleled control and data handling capabilities.

Built using LabVIEW™, Accelerant software unleashes the full potential of your high-performance hardware, integrates subsystems, and delivers precise control over the entire test cell.

SOFTWARE: Modular architecture, developed and refined by ACS in LabVIEW, delivers real-time control and seamless integration, built on decades of experience and proven through years of field-tested performance.



HARDWARE: Versatile architecture using NI™ real-time controller (PXI or cRIO), DAQ devices, remote I/O (EtherCAT), and device communication modules.

Core Functions and Features of Accelerant

1

System Definition and Configuration: Editable configuration files define module setups, control algorithms, and routing to align with hardware and test needs.

2

Modular Framework: Ensures adaptability with an abstraction layer and standardized communication.

3

Dynamic State Control: User-defined states enable flexible transitions triggered by logic, events, or alarms.

4

Custom Calculations: Script-based execution with access to variables supports complex computations, increasing system flexibility.

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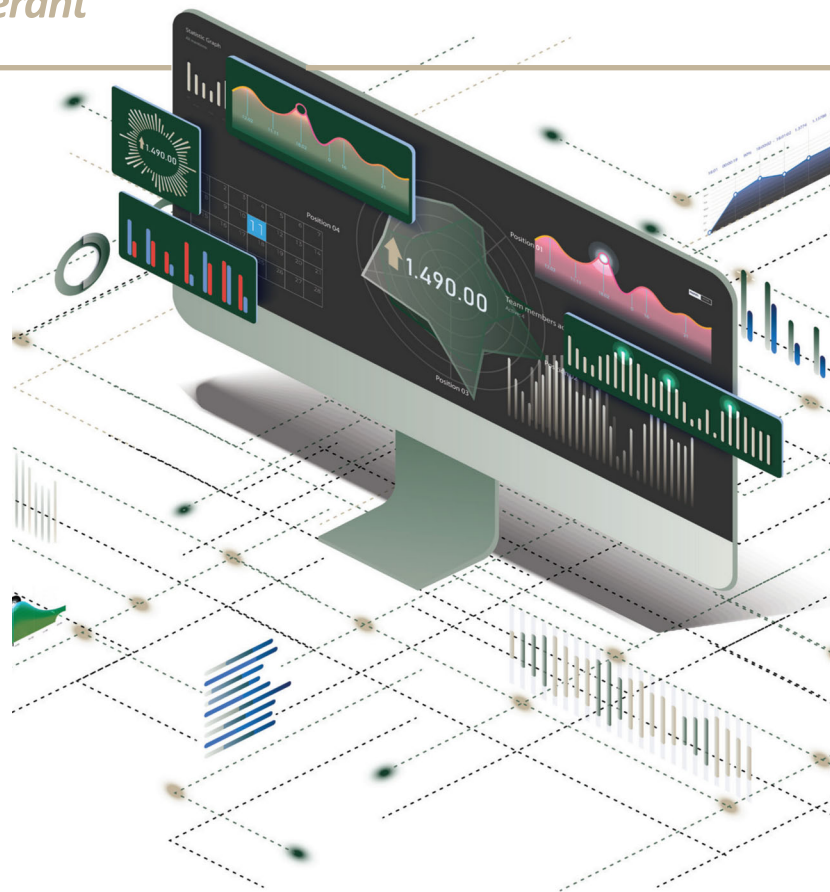
Alarm Monitoring and Control: Real-time alarm monitoring triggers automated control actions for enhanced reliability.

6

Real-Time Test Control: A multi-threaded scripting engine to support complex sequencing and test procedures.

7

Model-Based Control: Integrates with modeling platforms for advanced simulation-driven system design.



Delivering Results, Not Restrictions



ADAPTABLE, CONFIGURABLE, SCALABLE, AND FUTURE-READY

Acsealerant overcomes the limitations of proprietary systems by enabling engineers to:

- Reconfigure systems with editable definition files, eliminating the need for code changes.
- Add, remove, or replace modules to support changing test needs and hardware compatibility.
- Tailor control algorithms and routing to unique applications, reducing downtime and fostering innovation.
- Scale seamlessly with a modular architecture that supports system replication, future expansions, and new requirements.
- Adapt to new test conditions, providing long-term flexibility and reducing regulatory risks.



BROAD HARDWARE COMPATIBILITY

Integrating diverse hardware is simple with Acsealerant's:

- Hardware abstraction layer for seamless interfacing with legacy and new components.
- Support for NI DAQ, Remote IO (EtherCAT), and various device communication modules.
- Robust operation within LabVIEW real-time environments, ensuring reliable performance and future-ready integration.

CUSTOMIZED CONTROL AT YOUR PACE

Acsealerant combines flexibility, precision, and user control to transform testing environments. It equips engineers and managers to address diverse requirements with a modular, user-friendly design. Unlike rigid systems, Acsealerant allows customers to configure, customize, and scale solutions on their timeline— independently or with ACS support.



Using Acsealerant, engineers were able to capture more comprehensive data during variable test cycles.

Acsealerant Redefines Test System Possibilities



POWERS ACCURATE AND TRUSTWORTHY TESTING

- Deterministic, reliable operations critical for real-time control systems.
- Consistent results across high-stakes environments, ensuring repeatability and efficiency.



SIMPLIFYING COMPLEX CUSTOMIZATION

Acsealerant simplifies system modifications by:

- Offering a user-friendly GUI supporting an unlimited number of user-defined screen layouts with no programming required.
- Supporting independent modifications, reducing reliance on LabVIEW programmers or external support.
- Enabling teams to adapt quickly to evolving project needs and accelerate project launches.



ADVANCED DATA COLLECTION AND INTEGRATION

Acsealerant's data collection functionality enhances analytical precision and decision-making with:

- Flexible logging capabilities, including adjustable rates, triggers, and channel types.
- Pre-built integration modules for third-party data management platforms.
- Customizable data solutions to meet specialized requirements across diverse systems.

FLEXIBILITY BEYOND INSTALLATION

The “last mile” of customization often holds the most critical test requirements, yet it's the hardest to achieve with closed systems. Acsealerant eliminates these barriers, allowing users to adapt their systems to unique specifications, integrate new applications or hardware, and meet shifting priorities—long after installation.

Using Acsealerant, ACS built a high-altitude engine test cell for UW-Madison's Engine Research Center, delivering real-time control and expanded research capabilities.



Discover More Acsealerant Benefits: [visit acscm.com](http://acscm.com)

From Constraints to Agility: Acseleant Makes Testing Infrastructure a Strategic Asset

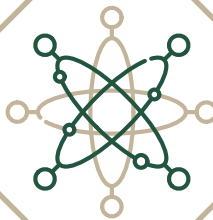


Traditional test platforms depreciate over time. In contrast, Acseleant is an intellectual property asset that grows in value. By transforming test capabilities into a flexible, scalable system, Acseleant helps customers turn technical challenges into competitive advantages.



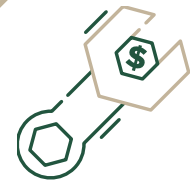
Collaborative Business Model

- Acseleant's licensed open-source model gives users full control to modify the platform, eliminating vendor lock-in and providing ownership of testing programs.
- Customers benefit from continuous improvements and optional subscriptions for exclusive enhancements, safeguarding against obsolescence and supporting future testing needs.



Amplify Innovation at Lower Cost

- Acseleant enables users to create custom GUIs, modules, and test systems on a standardized architecture.
- Accelerates proprietary IP development while reducing reliance on external resources.
- Eliminates repetitive technical groundwork, freeing resources for tasks like machine control logic and test profiles.



Optimize Total Cost of Ownership

- Customizing a standard interface with Acseleant streamlines operations, reduces onboarding time, and enhances operator familiarity across systems.
- Growing internal expertise reduces reliance on external resources, compounds organizational capabilities, and lowers support costs.

Unbound Potential, Unlimited Possibilities

Acscelerant does more than solve today's challenges. Its modular, open design empowers users to adapt, expand, and evolve test systems across teams, programs, and departments.

Designed for complete test cell control, Acscelerant integrates diverse subsystems seamlessly, providing management of the unit under test and the entire test environment.

For those seeking to modify an existing test system, replicate its success in a new area, or explore an entirely new application, Acscelerant provides the tools and freedom to do so according to your priorities and timeline. Make changes or partner with ACS experts for complex configurations—the choice is yours.

Ready to transform your testing systems?
Contact us to schedule a demo today.



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Acscelerant empowers engineers with intuitive interfaces for managing complex testing environments.

