7 Features of Digitally Optimized Controllers

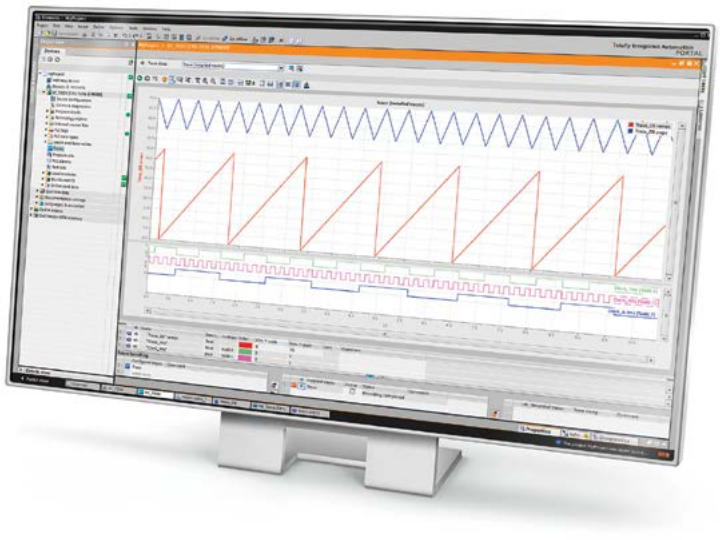
Not all "modern" controllers are digitally enabled. Here's how to make sure your choice will provide optimal ROI today and tomorrow.

Upgrading your controller is not as straightforward as it used to be. Features and technological advancements vary, even among brands that consider their controllers "modern." Manufacturers that don't make the right controller choice will miss out on competitive advantages available today and will experience diminishing ROI as they upgrade production assets for digitalization — the merging of the virtual and real worlds using applications and technologies, such as data analytics, the cloud and the Internet of Things.

To be sure you're not stuck with a controller that won't allow your plant to modernize and become more efficient, your controller choice should offer these seven essential future-focused features:

1. Integrated No-Programming System Diagnostics

- **What To Look For:** Easy-to-understand faults are automatically displayed on the HMI, web server and controller, allowing a line operator to diagnose the problem before leaving the tool crib.
- **ROI Contribution:** Efficient fault analysis and fast troubleshooting cuts commissioning times and minimizes production downtime.



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2. High Performance

- **What To Look For:** High-performance controllers with short command processing times, symbolic programming, faster communication and optimized data access allow for greater productivity.
- **ROI Contribution:** More flexibility in handling, higher quality control and shorter time-to-market.

3. Single, Scalable Programming Environment

- **What To Look For:** A scalable controller portfolio, ranging from simple to complex applications, with uniform engineering and code reuse.
- **ROI Contribution:** Positions the plant for higher, more profitable growth by allowing for the highest possible efficiency in engineering, operation and maintenance.

4. Integrated Safety

- **What To Look For:** A single controller, communication and programming environment for both standard and fail-safe controllers.
- **ROI Contribution:** Efficient and reliable protection of personnel, machines and the environment; lower operating costs throughout the entire machine safety life-cycle; and reduced system complexity and downtime due to one consistent system.

5. Integrated Security

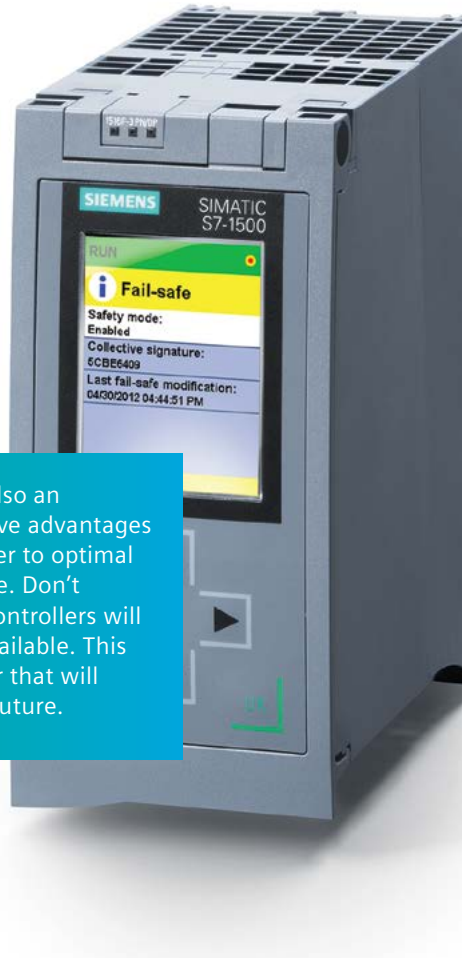
- **What To Look For:** Safeguards against illegal copying and manipulation, and additional password security for access — even to the controller level.
- **ROI Contribution:** Intellectual property and the investment it represents are safeguarded.

6. Integrated Trace

- **What To Look For:** Graphical representation of process diagnosis within the controller for quick fault analysis.
- **ROI Contribution:** Program and application diagnostics in real-time enables recognizing even sporadic problems, which means less downtime.

7. Enhanced Compatibility

- **What To Look For:** Built-in communication options and connections for the ability to share data via Ethernet/IP without code modifications to current installed controllers.
- **ROI Contribution:** Ability to share critical data to current installed controllers without the need for expensive gateways or third-party devices to keep your plant running as you move to more future-focused controllers.



An opportunity to replace a controller is also an opportunity to benefit from the competitive advantages of digitalization and move your plant closer to optimal efficiency for more profitable performance. Don't make the mistake of assuming all "new" controllers will come with the most advanced features available. This checklist can help you identify a controller that will continue to return benefits long into the future.

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