



DCS Upgrades: Maximize overall productivity

ICM can help determine which upgrades your plant's DCS system needs

Are you concerned about older Microsoft® technology in your control room not working with today's newer 64-bit computers?

If your plant is currently using an older Siemens ProcessSuite™ system based on a Windows 2000 32-bit operating system, you may be hearing in the industry that an immediate upgrade is necessary to prevent incompatibilities with new technology.

Manufacturer support for existing software/hardware will be phased out in the next few years; ICM can help you decide which type of upgrade makes sense for your plant.

ICM's DCS experts are available to perform a system audit to help you determine how and when you should upgrade. We can also help you weigh the risks versus the benefits of the following courses of action:

- Upgrade graphics software only [Basic Upgrade and Standard Upgrade]
- Upgrade entire DCS system [Ultimate Upgrade]
- Sign ICM's DCS Service Contract with guaranteed spare parts availability

Call us today for more information.

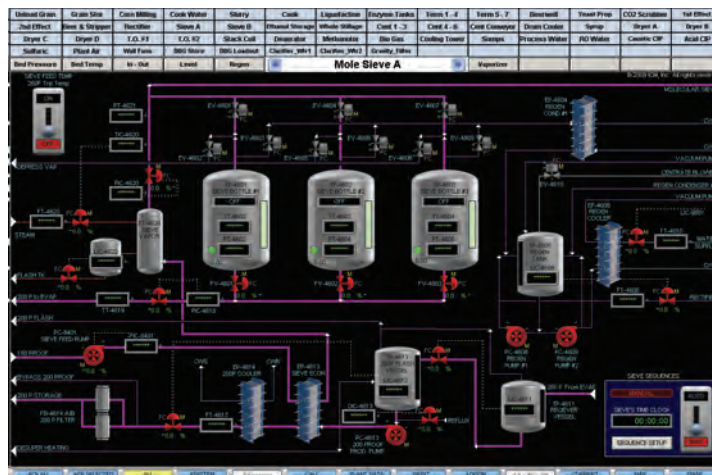


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DCS updates can help protect your technology investment

As your plant's needs evolve and operating technology advances, is your plant equipped to keep up? ICM understands the limited capital plants have available today; we offer the most up-to-date and cost-effective solutions for those ethanol facilities that are in need of an update to their existing DCS systems. We can help you determine your best next step forward in DCS system management, and we can update your current graphics package, upgrade to an advanced I-HMI™ graphics system, or install a complete DCS conversion package with minimum risk and process impact to your operations at a manageable cost.

Product Upgrade Comparison - At a glance		
	I-HMI™ System	DCS Conversion to Foxboro I/A Series®††††
Microsoft Windows®† Compatibility	Windows Server® 2003 OS and newer [32-bit and 64-bit]	Windows Server® 2003 OS, with support for future upgrades [32-bit and 64-bit]
Computer system upgrade	●	●
DCS I/O modules upgrade		●
Continuous software updates	●	●
Redundant DCS access	●	●
Wonderware®††††-based graphics	●	●
Service contract availability	●	●
System architecture	Dynamic	Dynamic



Example DCS Control Screen shown after utilizing I-HMI™ Graphics Package or Complete DCS Conversion Package

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Why Wonderware® from Invensys?

- Easy-to-use open platform
- Expand existing systems without having to buy new hardware or control systems
- Rapid and secure application implementation
- Scalable to one million I/O points across hundreds of stations

Automation support

Learn more about this and other Automation Department Services, including DCS service contracts and our new Advanced Process Controls system, by calling our Customer Service department today.

877.456.8588



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Standard Upgrade - I-HMI™ Graphics Package

ICM's I-HMI™ system, also based on Wonderware® technology from Invensys, is a dynamic, proprietary product developed specifically for the ethanol industry by ICM. This software is continuously updated to work with current 32-and 64-bit Microsoft® operating systems as well as the latest releases of Wonderware® technology. I-HMI™ graphics are similar to the graphic output of Foxboro®^{†††††}, making a transition to a Foxboro® system from Invensys easy on your operators, should you decide to upgrade at a later date.

- Intuitive user interface eliminates the need for extensive training
- Built in Wonderware® by the ICM same team that developed your plant's DCS system, providing trouble-free upgrades and support
- Runs on Windows Server® 2003 or newer operating systems. Capable of utilizing 32-bit or 64-bit technology
- As Microsoft® and Wonderware® from Invensys further enhance their technology, I-HMI™ technology will be updated periodically to ensure compatibility. ICM can perform these updates for you as they become available.
- Redundant DCS access ensures system reliability
- I-HMI™ Historian can be updated without system shutdown
- Right-click functionality provides quick access to critical alarms

Ultimate Upgrade - A Low-Cost Complete DCS Conversion Solution

A unique I/O replacement solution designed specifically for APACS®^{††} users, this package upgrades your existing Siemens ProcessSuite™ system to a new, full-featured Foxboro I/A Series® system from Invensys. There is no change to I/O wiring or terminal blocks, no extra footprint required; Invensys has developed one-for-one Foxboro I/A Series® I/O replacements for APACS® I/O modules that plug in directly to existing MODULRAC™^{†††}, SIX-RAC™^{†††}, or UNIRAC™^{†††} mounting racks. This approach can significantly reduce the high cost, risk, and impact typical of full system replacements. Computers will be replaced with new 64-bit technology (Windows Server® 2003 OS) and a new fiber-optic mesh network will be installed, giving you a 100% new Foxboro I/A Series® control system, the enabling platform for full enterprise control and business integration. ICM can usually perform the upgrade in one day, during a regularly scheduled shutdown.

The Foxboro I/A Series® was designed to control critical and hazardous non-stop operations with state-of-the-art security, while providing maximum uptime with multi-layer, top-to-bottom fault tolerant architecture. The 1Gb MESH network uses fiber-optic cable to communicate rapidly and reliably while handling multiple faults with powerful control processors. The system is set up redundantly, and relies on interface modules with other systems, not terminal servers, increasing analog input accuracy. The Foxboro I/A Series system is also the enabling platform for InFusion®^{†††††} Enterprise Control, allowing manufacturers to optimize the productivity, control, and safety of their operations in real time.

- Intuitive Wonderware®-based user interface eliminates the need for extensive training
- ICM will usually have your plant back up and operating in one day
- Full new system warranty on all components, including both new and remaining legacy equipment
- Scalable to fit current and planned needs, avoiding the expense of over-sized capacity
- Keeps all process wiring in place and unchanged and eliminates I/O mapping issues
- Seamless equipment addition — Siemens I/O modules can be simply swapped out with a form-fitted Foxboro® module that meets or exceeds original design specifications
- Requires no new DCS cabinets, DCS racks, termination assemblies, or power supplies
- Driven by Invensys *Continuously Current*™^{†††††} philosophy, the Foxboro I/A Series® is regularly updated with the latest operating technologies, while remaining compatible with earlier generations.

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