

Achieve the advantages of smart automation and control



CitectSCADA

10 things you should know about SCADA

1 **Safety of workers and equipment are increased** through predefined processes managed by a SCADA system.

2 **Engineering costs, time and risk are reduced** through easy integration with all your plant devices.

3 **Resources, such as people and plant assets, are optimized** as SCADA promises high level control over the plant environment.

4 **Productivity is increased** via analysis of processes used to improve plant and production efficiencies.

5 **Maintenance costs are reduced** through centralized control and monitoring that minimize downtime.

6 **Quality is improved** because the analysis of process data can result in preventing errors before they occur.

7 **Operators are more effective** using SCADA because it consolidates the various plant processes and provides them with a comprehensive overview of operations.

8 Alarms are centrally managed which **improves operational effectiveness** by not overwhelming operators unnecessarily.

9 Integrating SCADA with an historian package and other business systems will **connect the plant floor to the boardroom** by sharing real-time and historical data.

10 Mobility solutions provide operators with the freedom to **observe operations first hand** no matter where they are.

Reliable, Flexible, Scalable

The benefits of “going SCADA” are undeniable – the increased efficiency in your production system that is gained through SCADA’s monitoring and control features means lower costs, higher productivity and increased profitability for your business.

The benefits of “going CitectSCADA” are better still:

- **Preserve you capital investments while improving your system:** CitectSCADA is a truly open system. For you, this means CitectSCADA will work with the devices and PLCs that you have now or might acquire in the future.
- **Minimize costly downtime with maximum redundancy:** CitectSCADA’s redundant architecture provides your system with optimum reliability to avoid the damaging and costly effects of system downtime.
- **A flexible system that can grow with your business:** Its highly scalable client-server architecture means that CitectSCADA will always fit your enterprise to a tee. As your needs change, you can easily redesign your system accordingly. Don’t outgrow your system; have CitectSCADA grow with you.
- **Achieve engineering efficiency as well as operational efficiency:** Its intuitive visualization tool, Process Analyst, and object-based configuration using Genies and Super Genies reduce operator overload while saving expensive engineering time and maintenance costs.

CitectSCADA is a fully integrated industrial control solution that will help you increase your return on assets by delivering a reliable, flexible and high performance control and monitoring system. Easy-to-use configuration tools and powerful features enable you to quickly develop and deploy solutions for any size application.

CitectSCADA is sold as a fully featured software package, including protocols and drivers. As a result, it is tightly integrated and built to perform. Unlike other PC-based industrial control systems, CitectSCADA was designed from its beginning to handle all the

needs of the smallest to the largest and most complex enterprises in a single, integrated system, while maintaining high performance and reliability.

CitectSCADA is designed to provide companies of all sizes and industries with agile control over both engineering and runtime operations to significantly improve performance and achieve a lower cost of ownership. Take the stress out of your operations by ensuring that vital production data will always be available to you.

Scalable architecture for a perfect fit

Scalability is the power to resize your system — up or down — without having to modify any of the existing system hardware or software. Your SCADA system’s unique requirements will change over time, so how do you choose the best architecture? CitectSCADA gives you the ultimate system architecture because it is scalable, and rescalable, to any application size.

CitectSCADA’s innovative, scalable architecture allows your system’s architecture to grow with your requirements while preserving your initial investment. If you require a second operator interface, just add a new computer to the network and nominate it as a Control Client. The new computer can share the same configuration and will receive I/O from the first CitectSCADA computer.

Clustered control for optimum topology

In the current economic climate of widespread corporate belt-tightening, centralized control becomes an even more important issue. CitectSCADA’s unique ability to unify any number of control systems into a single, “clustered” system provides users with the optimum topology. While each local site can view its own control system, global control clients can be implemented to view across the whole control system, complete with unified alarm lists and the ability to compare data across the multiple systems.

CitectSCADA allows a single client to view the alarms, trends and reports from multiple groups of



Features Overview: Reliable, flexible, high performance SCADA for any industrial monitoring and control application

-  Historical alarm summary
Active alarm management
Alarm analysis
-  Customizable views
Real-time activity monitoring
Fast storage for trend history viewing
-  Windows Integrated Security
Dual signatures
Authentication and authorization
-  Cicode
CitectVBA
CitectVBA Editor
-  Graphical process visualization
Powerful analysis tool
Alarm and trend data comparison
Easy to display and export data
-  Multiple control systems connection
Control system segmentation
Additional processing support for scalability
-  Symbols
Genies
Super Genies
Page templates
-  Scheduler
Drivers
Switch2Citect

servers without combining all the projects together into a single large project. It enables a single server to be a redundant pair to many remote servers. The user can define the tags, alarms and trends without clusters and have the system automatically duplicate the configuration for each cluster. Our advanced clustering technology provides:

- A seamless operator view across existing control systems
- A combination of control (including alarms, reports and trends), local to the process, paired with a central standby server
- Additional processing support for expansion requirements by simply adding a new server to the control system
- Ability to segment your control system, ensuring changes in one business unit do not affect the others
- Ability to connect to multiple control systems and analyze the alarms and trend data directly from the SCADA systems

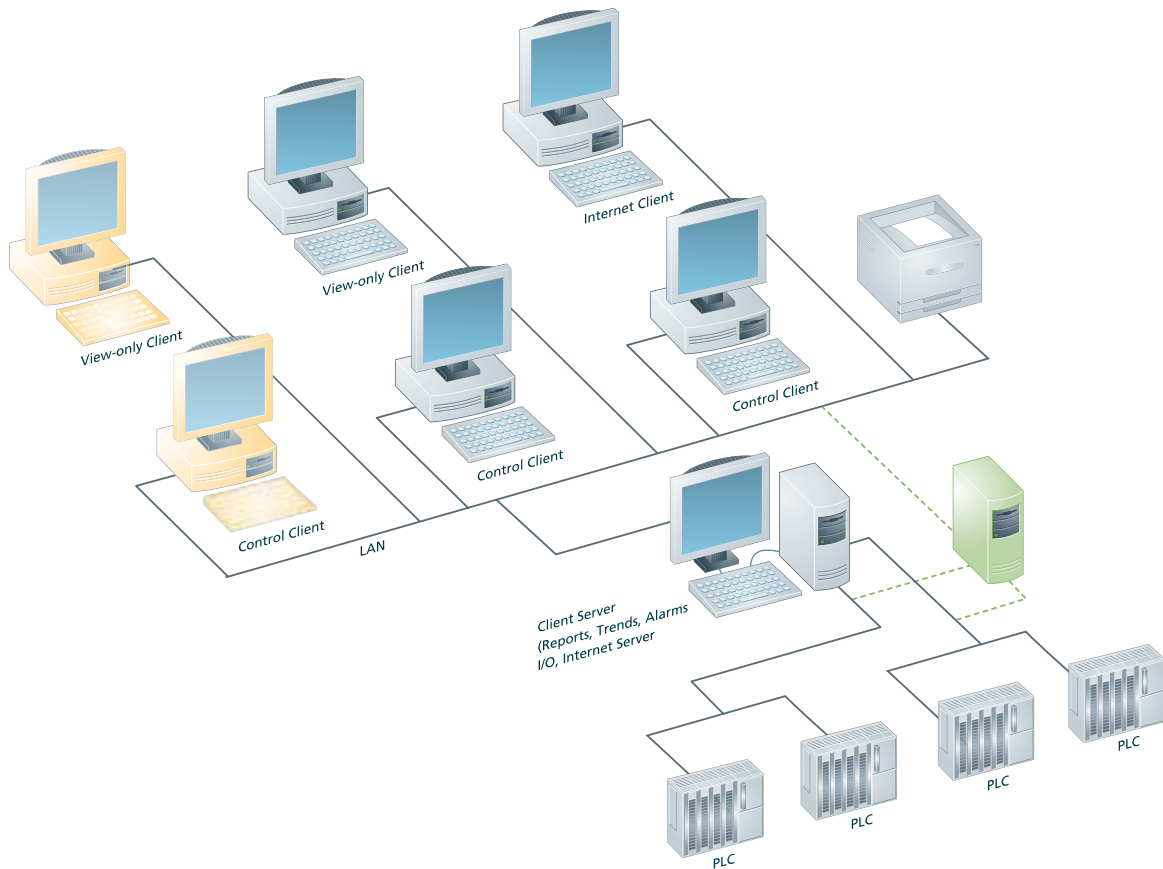
Flexible architecture for any configuration

To take full advantage of the client-server architecture, CitectSCADA has five fundamental tasks which handle: communications with I/O devices; monitoring of alarm conditions; report type output; trending and user display. This architecture allows the communications and the control system designs to be completely separated and provides more flexibility for changing I/O server locations or system connections in the future.

Reliable architecture for full redundancy

In factory automation and other mission-critical applications, hardware failure leads to production loss and can result in potentially hazardous and costly situations. CitectSCADA's redundancy will tolerate failure anywhere in your system, with no loss of functionality or performance.

CitectSCADA supports full, hot standby configurations, providing complete I/O device redundancy. By nominating one device as primary



System architecture topology: Scalable - Ultimate system architecture, scalable to any application size

and the other as standby, CitectSCADA will automatically switch from one to the other in the event of a failure. Using CitectSCADA's ability to write setpoint changes to both primary and standby I/O devices, even devices that were not designed for redundancy can be used in a redundant configuration.

Broken communication cables and unpredictable electrical noise are common communications issues. In response, CitectSCADA allows the use of two separate communication cables (run separately) for each I/O device. By using data path redundancy, you minimize the chance of communication loss affecting your operation.

Whether you need an easy-to-use operator interface with networked reporting capabilities or an entire client-server SCADA system spanning multiple plants on different continents, you can do it all with CitectSCADA.

Open communication with integrity

With CitectSCADA, you get 100% data integrity. Over 140 I/O device drivers are included in the

software. These allow you to connect to over 300 different models of I/O devices — PLCs, RTUs, micro controllers, loop controllers DCS elements, weighers, bar code readers, scientific analyzers and more. Drivers for several popular programming packages are also included with CitectSCADA and others can be created. The Driver Update Utility is available to all users, making it simple and easy to keep the CitectSCADA drivers used in specific projects up to date.

CitectSCADA's I/O device communication wizard will have you communicating in less than 60 seconds! Moreover, the CitectSCADA FastLink links your database in CitectSCADA to the PLC programming software, providing you with an ideal single database solution. By linking tags directly with PLC programming software, CitectSCADA makes it easier to configure and maintain your system.

Many control systems and applications provide OPC compatibility as a method of data sharing. CitectSCADA can function as an OPC Server, loading plant variables into memory for access by



CitectSCADA graphics allow you to quickly develop true color, easy-to-use displays that provide the operator with an intuitive and consistent user interface.

other Windows applications. CitectSCADA can also function as an OPC Client, allowing data exchange with other OPC Servers.

Open interface with external applications

One of the strengths of CitectSCADA is the manner in which the application can be configured for interfacing and data transfer to external systems and applications.

CitectSCADA's Application Programming Interface (API) gives you the most flexibility and the best performance by providing a direct interface into CitectSCADA for external applications. It consists of a set of functions which allow you to directly read and write I/O and control multi-tasking programming language, Cicode.

Monitoring devices and sites over the Public Switched Telephone Network is also easy and economical thanks to CitectSCADA's Remote Device Monitoring which supports scheduled Dial-Out and unsolicited Dial-In. Using standard wide area communication technologies, CitectSCADA provides an effective method of communicating with remote

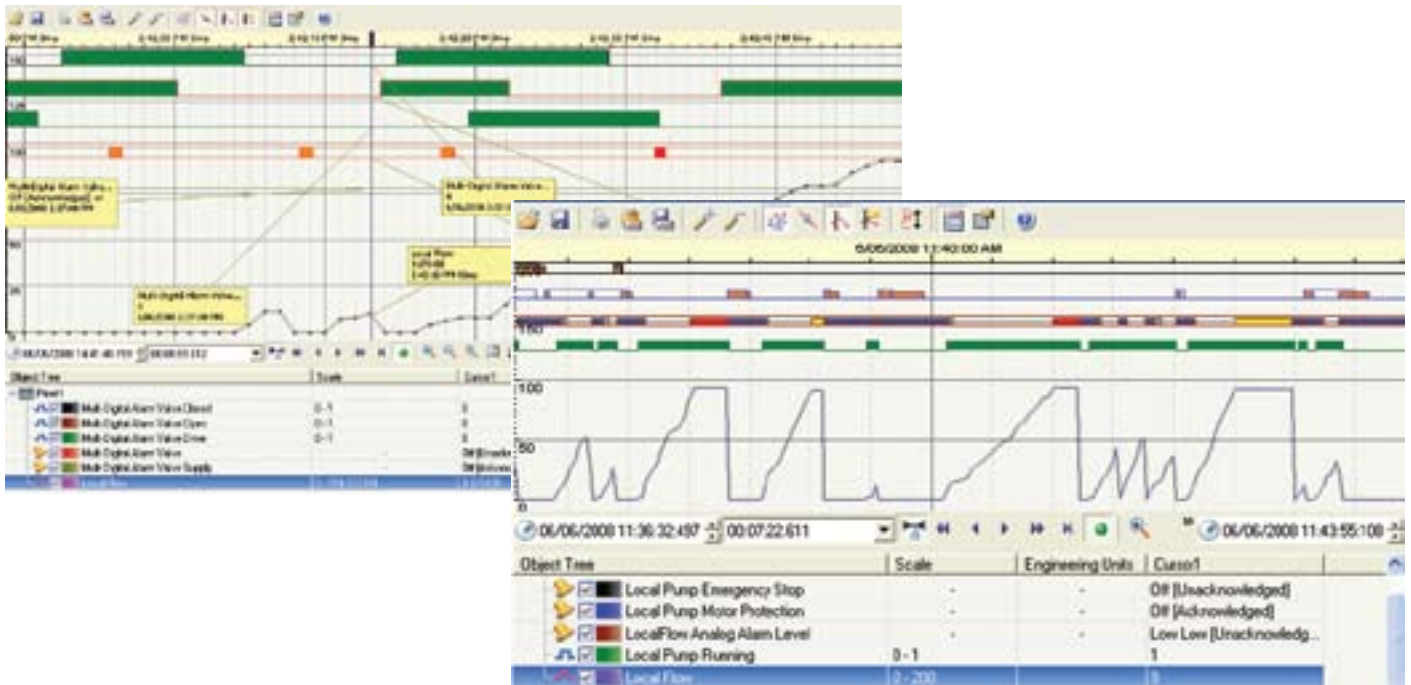
telemetry units (RTU) for a fraction of traditional operating costs.

Powerful graphics for realistic interface

The graphics capabilities of your SCADA system are a critical factor in its overall usability. CitectSCADA allows you to quickly develop true color, easy-to-use graphics that provide the operator with an intuitive, consistent user interface. CitectSCADA's graphics are based on a simple set of objects. The movement, rotation, size, color, fill and visibility of any object can be used to realistically replicate plant floor conditions and commands. Touch properties can also be assigned so the object can accept a variety of operator inputs. The results are immediate and impressive: For even the most demanding applications, your operator interface will remain simple, flexible and easy to use. The high quality graphics capabilities will reduce operator error and provide excellent runtime performance.

Intuitive visualization tool

When analyzing the cause of process disturbances or trying to improve productivity in the process, the comparison of alarm and trend data can be quite



Get the complete picture with a simple viewer and improve productivity.

revealing. While sophisticated analysis tools are available in data historians, an intuitive visualization tool that sits directly in the SCADA system itself, such as CitectSCADA Process Analyst, can deliver actionable insight to the operator faster, thereby enabling them to immediately modify process conditions to achieve the desired results. Operators can now intuitively spot linkages when alarm and trend data are brought together in one integrated display by CitectSCADA Process Analyst.

Improve productivity

CitectSCADA Process Analyst presents not only the alarm and trend data, but also the operator's acknowledgement of those alarms. This feature is useful because it means the analysis incorporates a whole new level of insight into operator effectiveness, as well as areas of attention in system design.

CitectSCADA Process Analyst has pre-configured templates, saved view or favourite view options. As a result, operators do not have to spend time customizing the most common views that they keep going back to, again greatly improving efficiency and productivity.

Object-based configuration

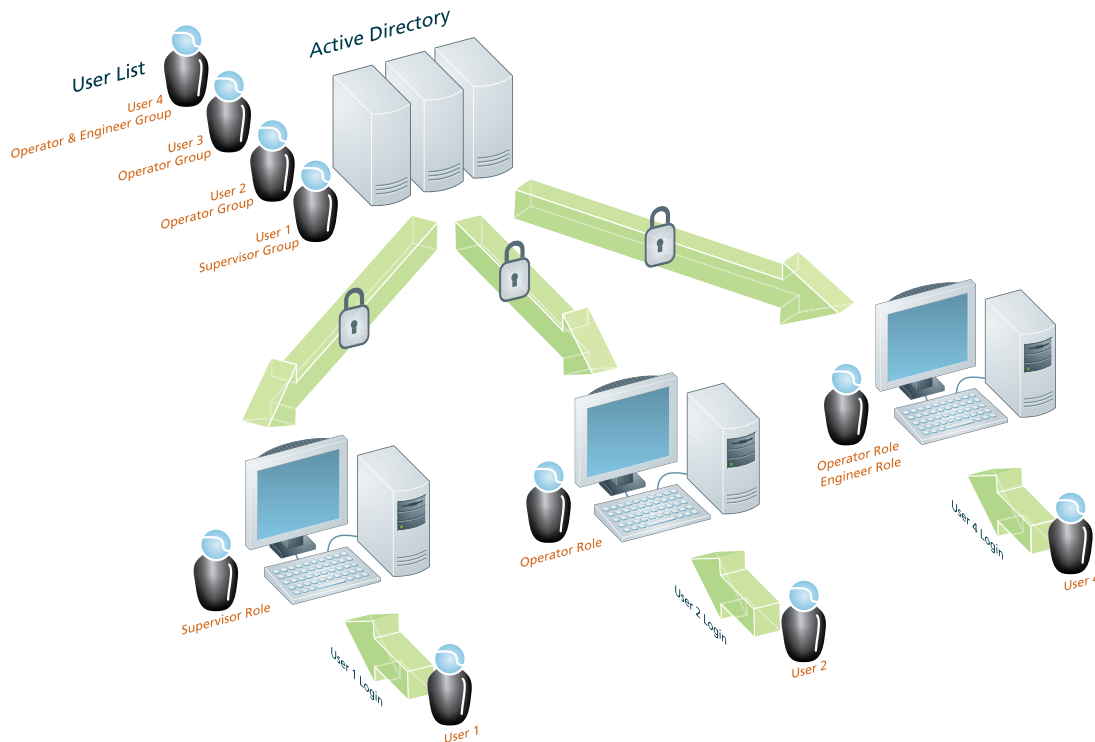
CitectSCADA enables you to quickly and easily develop your control system by providing object-based configuration tools for development. In addition, the use of object-based configuration reduces maintenance and ensures consistent operator interaction.

CitectSCADA provides existing libraries that can be extended and customized or enhanced to suit the requirements of your project, or you can simply build your own. These tools are optimized by the use of a tagging standard within the device tags. An effective tag naming convention reduces the amount of configuration entry, thus lowering the risk of errors.

Security

The importance of system security cannot be overstated. CitectSCADA's integration with Windows authentication ensures that the same corporate security standards apply to the control system as to other applications. Further, it creates a single location for the management of all user accounts.

With CitectSCADA support for Microsoft Windows Vista, you can take advantage of the additional



CitectSCADA Windows Integrated User Authentication



SCADA on the move

Our mobility solutions extend the capabilities of CitectSCADA software by providing easy access to the SCADA application from different software platforms and devices. This allows employees to be mobile, giving them the freedom to observe operations first hand. By increasing visibility into the plant's real-time processes, you are able to improve decision making which can, in turn, increase your plant productivity.

security features built into this operating system, as well. Dual signature support provides a second level of security for actions. For example, some operations may have financial, environmental or other consequences where your processes dictate that a second level of verified confirmation is required before the action can proceed.

Reduce operating and maintenance costs

By deploying a centralized CitectSCADA system, you will find that you can significantly reduce operating and maintenance costs. Using its remote monitoring capabilities, fewer personnel are required to monitor field equipment in remote locations, resulting in increased operator effectiveness and lower personnel costs; less maintenance trips mean decreased maintenance and training costs, as well.

A protected investment

CitectSCADA is complemented by a full range of specialized customer services, including professional services, an accredited integration partner program, technical support and training, ensuring that your automation investment is secure and protected. We will be with you every step of the way, from tailoring the system to your needs to post-installation support and future upgrades.

Integrate with your business systems

CitectSCADA can be easily integrated with your existing business systems using Citect-Historian, our historian software with powerful reporting tools. Citect-Historian connects your plant and business database systems to facilitate plant-wide reporting, leading to increased production and profitability.

Contact us today at www.citect.com