Application Note - HMI/SCADA

IVC's software creates a flexible, scalable, and open environment for cameras and other necessary hardware and software. To illustrate, IVC video is used in an advanced integrated security system at a newly constructed prison in the Southeast. The facility has a capacity in excess of 500 inmates in a three building complex.

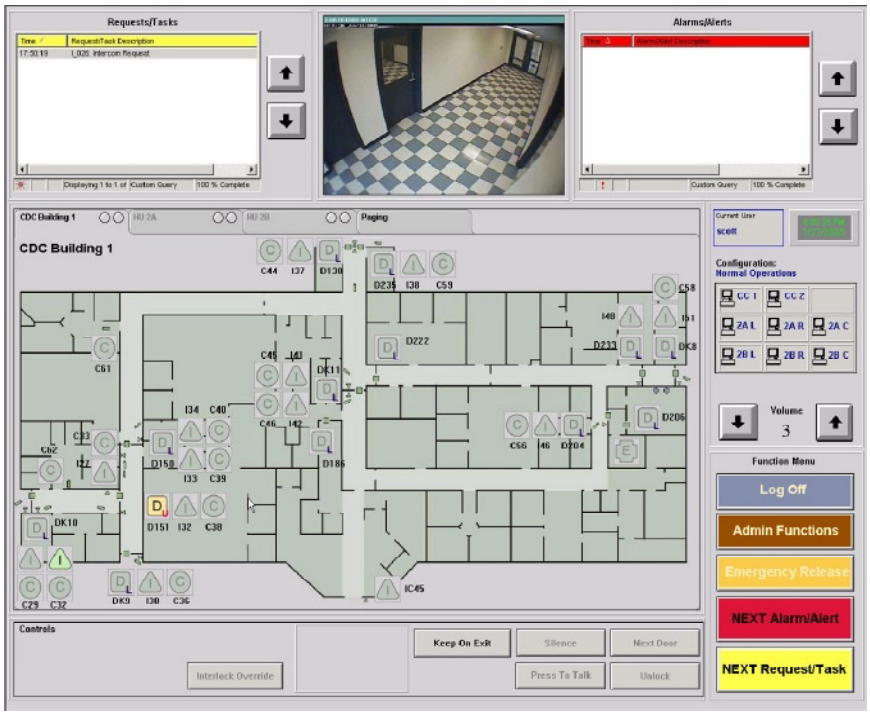
Two operators in the Administration Building monitor video, respond to alarms and alerts, and manage door access. They control access remotely for all three buildings and all doors within the administration building.

The video system consists of several camera servers located in each building of the complex. The camera servers convert analog video to digital IP for network distribution and are connected via a fiber backbone to IVC Relay Servers.

In addition to running IVC software for video control and display, the system is fully integrated with Wonderware software for access control. It also incorporates two-way intercom communication to all control doors.

Operators view and control the system using touch screen monitors that simplify operation thereby significantly reducing training costs. IVC View Station Software is configured for the touch screens with buttons assigned and intuitively labeled for each of the various operations.

At the prison's central control room, there are two operators each attending an access control monitor and sharing a video camera display. Each of the other two buildings has two touch screen monitors to control prison cells and the internal doors. A third monitor controls entry to the individual cell pods.



For increased security, outside access to all three buildings is controlled from the Administration Building. When someone wants to pass through a door, an alert appears on the operator's screen, video from a camera adjacent to the door is displayed, the door lock switch for that door is displayed, and the proper intercom is connected, all automatically. The operator can enable the door opening, the event is automatically logged, and video is saved for future review if necessary.

A systems integrator that specializes in prisons and jails implemented this project. IVC worked closely with the integrator and added additional features to its View Station to accommodate the customer's requirements. Using IVC Active-X controls, it was possible to easily create a seamless integration with Wonderware. Other customers have integrated video into their applications using other popular SCADA programs such as CitectSCADA, ClearSCADA, Emerson's DeltaV, National Instruments' Labview, and Rockwell's RSView.

Feature Focus - ActiveX Controls

The ability to integrate various components of a security or process monitoring system under a single interface is key for most HMI and SCADA applications. Since video provides the "eyes" for the application, it is often desirable to view video along with the system status and controls. IVC software provides the facility to do this seamlessly.

Provided with the Relay Server software is a set of ActiveX controls. This API provides the ability to integrate video and camera control into your HMI application. Using the IVC ActiveX controls, you can embed all or part of the Relay Server view panel into an applications window. This gives you the flexibility to use IVC video controls or to design your own buttons to operate cameras, view, and/or save video. For added flexibility, the IVC ActiveX controls can be used with web applications, Microsoft Visual Basic, and Microsoft Visual C++.

The IVC ActiveX component is a small file that integrates easily over any network. The solution developer need only use our built-in dialog box to configure the component or choose to build a customized interface via simple scripts.

The following facilities are provided by IVC's ActiveX component:

- *Live Streaming Video Screen with or without Camera Steering and Zoom Control: IVC's Click-to-Point feature is included in the video display. Full ActiveX standards compatibility: The component meets Microsoft requirements for a safe, scriptable, and data-bound ActiveX control.*
- *Configurability: A solution developer may configure the component using a built-in dialog box, and also programmatically via simple scripting interfaces. The solution developer can enable and disable video streaming, and choose an appropriate frame rate, for each application.*
- *Simplicity for end-users: End-users of custom solutions have as little or as much control over the video system as the solution-developer wishes.*
- *Look and Feel: The IVC video functions can have the look and feel of the host SCADA system regardless of the cameras or other components that are selected for the installation.*
- *Small and Easy: The IVC ActiveX component consists of a single software file approximately 150K in size.*
- *Compatibility with the IVC product line: The IVC ActiveX component integrates seamlessly over intranets, extranets, and the public Internet with IVC's Relay Server products.*

Try IVC's ActiveX component. Visit http://www.ivcco.com/support/index.html to download technical details on our ActiveX control. You can also download the control itself and immediately view live video from our indoor and outdoor demo cameras.

For more information contact IVC or your local Authorized Reseller

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