Sawmill Operations

The increased sophistication of manufacturing coupled with the flexibility and economy of IP video systems have enabled the creation of large, complex factories that can be operated with a small staff. Machine operation is increasingly automated and video monitoring systems provide the "eyes" on the floor, so whole operations can be controlled from a single operator console. An additional advantage of an automated video system is the ability to record and playback all activities in the plant. This is useful for recording maintenance procedures and system upsets. These aspects of video process monitoring provide for a more productive and safer environment.

A major US forest-products company recently built a new mill in Western Oregon. The primary purpose of this mill is to produce Douglas fir dimensional lumber for residential and commercial use. The mill uses Allen-Bradley PLCs to control 300 to 400 foot long machinery that processes fir logs into studs eight to twelve feet long. The system is designed so that one operator can run one or even two log processing machines.

The video monitoring system is currently comprised of 50 IVC indoor PoE cameras with fixed focal and vari-focal lenses. Using Power over Ethernet reduces installation costs and provides for a more flexible architecture. Cameras can be easily moved as conditions warrant without any concern for power sources. All video feeds are connected to IVC's Relay Server software that, in turn, sends video on to client viewers. Any user

on the network with proper access rights can view video via a browser or IVC's View Station client software.

IVC's Relay Server also acts as a video recorder. Recording can be initiated manually by the operator, via scheduled event, or when an alarm condition occurs. Recorded segments can be played back in a browser window or in the View Station.

IVC's IP-based video system provides an easily scalable architecture with low per-camera installation costs. The system described here is to grow to over 100 cameras. Once the IVC software-based system is in place adding cameras is just a matter of mounting and connecting the camera to the network, and a little software configuration.

The decision points for the mill operators were:

- Ease of installation provided by PoE technology

- Flexibility of IVC's scalable software-based approach

- Broad selection of cameras to meet any requirement inside or outside of the plant

- Configurable viewer software in order to customize screens to meet specific operator console requirements

Mill operators view 6 to 8 camera feeds simultaneously on multiple 32 inch monitors connected to computers running View Station. With a single mouse click the operator can switch to a full screen view of any camera feed.

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