

# **Component Level Automation System Solutions (CLASS): A Reliable Approach to Efficient Broadcast Workflows**

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The automation sector and requirements for the broadcast market have not changed drastically over the years. Every automation vendor offers the same features and can control the same devices, but to offer a competitive edge, each vendor utilizes a different workflow. While the broadcast market used to depend on traditional baseband acquisition and preparation of material, recently it has evolved to rely on file-based workflow and management. As a result, there is an increasing trend for automation companies to develop and implement what has become known as a station-in-a-box (SIB) automation solution.

SIB solutions collapse many of the pieces that constitute a traditional master control and playout chain, including switchers, servers, graphics, channel branding, audio, and routing, into a single software platform running on generic IT-based hardware. While SIB systems provide simplicity and fast deployment, a traditional automation solution offers broadcasters more value by enabling the repurposing of existing hardware, easy scalability, a high level of reliability, full redundancy, and guaranteed interoperability. That is why NVerzion's CLASS (Component Level Automation System Solutions) automation platform, which leverages partnerships with third-party companies, provides a more robust automation solution, delivering a crisper, seamless, end-to-end broadcast experience for stations and viewers.

## **A Modular Solution Using Best of Breed Components**

A broadcaster relies on five key components in the station's internal infrastructure to successfully transmit and manage its operations: a router and/or master control, video server, graphics, automation, and traffic/business service. NVerzion CLASS offers the best of all products in one complete package; or alternatively, works with a broadcaster's existing infrastructure to offer the complete system. Rather than replace all of a station's existing equipment, CLASS enables the station to capitalize on the ROI value for already purchased equipment.

The modularity provided by a CLASS automation solution provides two major benefits to a broadcaster. First, there is no single point of failure. A modular architecture offers workarounds

so that a user can bypass any piece of equipment that isn't functioning properly. One of the disadvantages of SIB is that a broadcaster can theoretically overload the system because every function relies heavily on a single CPU. Therefore, if the station's graphics are too complicated, a SIB system can fail, leading to stalled video, clipped frames, or other quality issues that directly affect a station's revenue. With CLASS, if the graphics component fails, the station can bypass the graphics and still get the signal on-air. Similarly, if a video server component goes down, the station can switch to an alternative component on the router to deliver a high-quality presentation.

The second major benefit of a modular system is that it facilitates the implementation of how the automation is going to be used, meaning a user can break down the automation to the component levels of how it's going to be used within the system. For example, a broadcaster can set up a single or multiple workstations dedicated to acquisition, preparation, and distribution, enabling multiple operators to simultaneously access the system. In addition, these workstations can be located anywhere in a facility. Overall, this makes the system easier to use, therefore increasing a broadcaster's efficiencies.

### **Seamless Integration with an Existing Infrastructure Leads to Cost Efficiencies**

A CLASS automation solution can be easily implemented into an existing infrastructure, providing broadcasters with flexibility not afforded by a standalone device. Rather than being tied to a single piece of software, CLASS allows a station to utilize a broad range of solutions and choose the best equipment (e.g., video server, master control, router) to meet its needs. A common downfall of SIB solutions is that they do not integrate well with a station's existing equipment. Specifically, most do not integrate with the station's business service or traffic system — a central component related to a station's sales and revenue. The flexibility and seamless integration afforded by a CLASS automation solution, which offers full support of the Broadcast eXchange Format (BXF), means there is no disruption to a station's operations and, in turn, revenue. Therefore, a robust solution like CLASS is cost-saving for operators, as well as the business headend.

### **Endless Scalability Leads to Reliability**

Scalability is extremely important to broadcasters today, who are increasingly adding and acquiring new channels. A CLASS automation solution allows a broadcaster to easily add a second or third channel, without the expense of adding another workstation for each new

channel. For example, a broadcaster can control five video servers with one automation system as opposed to operating five different boxes of automation. The efficiencies gained in terms of inventory management are enormous. A broadcaster operating separate SIB systems must maintain the same piece of media for five channels on five separate storage devices. Managing a large amount of inventory between disparate boxes makes it harder to share information. In a CLASS automation system, the media is recorded once only, played out once, and can easily be shared by all common platforms. With the capability to control many different components from one central platform, a broadcaster reduces the risk for information overload, which decreases errors and increases reliability in delivering a high-quality television viewing experience.

## **Conclusion**

With the increasing amount of new compression algorithms being used in the broadcast industry and new technologies like 3-D graphics on the horizon, stations need a reliable system that can support these technologies to automate its operations and generate revenue. A traditional-based automation system is scalable, efficient, and reliable, eliminating any on-air problems and using fewer people to do so.

On the other hand, SIB is still a fairly new technology. While IT-based systems work very well to do a specific task, when new processes are introduced, they often don't perform well. While the startup cost to install SIB is relatively small compared with a traditional automation system, the long-term savings of a CLASS system outweigh the initial cost. As economic pressures persist, broadcasters need a reliable automation platform to reduce costs and deliver a reliable on-air presentation. CLASS delivers just that — a tried and trusted solution that increases a station's workflow efficiencies, saving broadcasters time and money.