www.crispincorp.com

Why Choose Crispin?

The costs of running a television station have never been higher, yet revenue growth at the local call letter television station is anemic at best. In fact, a 2009 BIA Kelsey television market analysis showed revenue growth at negative 22%.[1] It's no wonder that nearly every television station and station group has considered all options available to improve operational efficiency, including updating automation and—quite possibly—utilizing a centralcasting model among their station group.

But with a myriad of automation vendors to choose from, the question becomes which ones can truly deliver substantially improved operational efficiencies and a positive ROI. How can you differentiate between them?

Even if you're currently using another automation vendor today, we believe there are many reasons why you should consider Crispin Corporation as your automation partner for single station, multi-channel and/or centralcasting operations. We've highlighted 10 areas that we believe are critical differentiators and are also keys for success of any automation vendor. When you're ready to discuss your next move in multi-channel operations that includes either single station or multi-channel centralization, give us a call at 919-845-7744 or e-mail us at sales@crispincorp.com. We look forward to hearing from you.

10 Reasons to Select Crispin:

1. Experience and Commitment
2. True TCP/IP-Based Device Control
3. Best On Air Performance
4. Reliability
5. True Modularity and Control-From-Anywhere Architecture
6. File-based Workflows
7. BXF Integration
8. Built-in Archive
9. Architecture and Features Designed Specifically for Multi-channel Operations
10. Lowest Overall Cost of Ownership

[1] BIA/Kelsey (http://www.bia.com/publications/TV-Market-Report-Info.pdf)

1. Experience and Commitment

Founded in 1997, Crispin is a leading provider of broadcast automation and asset management solutions. From small independent stations to station groups and large network facilities, our software is used to control hundreds of channels. Automation is all we do and that commitment and focus to our customers is important part of our success.

Crispin has a long running tradition of innovation and successful implementations of new technologies, including products designed specifically for the needs of multi-channel centralcasting. Take a look at some of the key innovations that has guided our growth over the last 13 years:

- Developed Archive Manager in 2000, providing stations a low cost alternative for automation-integrated nearline storage without expensive third party systems.
- Released Digital Transfer Agent in 2005, a comprehensive asset management solution for digital file-based delivery services of ads and programming.
- Released world's first on-air BXF implementation in March of 2007.
- Fully integrated Windows Embedded OS into our hardware / software solution in 2008.

Centralcasting Customers:

- Gannett Company uses Crispin automation to control 14 spoke stations located throughout the U.S. from 2 hubs locations, each capable of supporting master control for all 14 stations with room for expansion.
- Raycom Media uses Crispin automation for centralcasting from their Charlotte, NC hub.

We are proud to be the automation choice of the following stations and groups, among many others.

2. True TCP/IP-Based Device Control

Crispin has used TCP/IP for device control since its formation in 1997, first utilizing the Grass Valley Profile API to control ingest, prep, and on-air playback on the Profile video server. Since then we've added many other TCP/IP-based interfaces to leading vendors' broadcast equipment, including the Omneon and Nexio video servers.

In fact, our whole system architecture is based upon TCP/IP communication between modules, adding a level of flexibility and modularity to the system that other monolithic automation systems simply cannot provide.

Of course we provide serial-based 422 control of devices using a myriad of different protocols, including VDCP. But when it comes to video server playback for on-air, the performance and flexibility provided by a TCP/IP-based protocol is apparent. The advantages include:

- Best available pre-roll performance on video servers (e.g. as little as 8 frames versus 2 seconds for VDCP).
- It is the only available control protocol for sophisticated playback options such as bounce mode, key/fill mode, or dynamic AFD selection on video servers. VDCP simply does not have commands to perform these functions as the protocol is dead hasn't been modified in years.
- Easy wiring (no frustrating serial cabling problems with complicated or obscure pinouts) or cable length issues. Therefore, your video server can be located practically anywhere, providing additional rack-and-wiring options for large multi-channel facilities.
- Allows for easy failover control and resource reassignment (versus hardwired connections to ports).
- Utilizes the protocol that is preferred by most video server manufacturers for playback.

If your current automation company doesn't provide a TCP/IP-based control of that very expensive video server in order to utilize its full potential and flexibility, don't be fooled by a response that it's unproven technology. Crispin customers have been successfully utilizing this technology on air for 13 years!

3. Best On Air Performance

Perhaps the best performance measure of any automation system is the ability to run multiple channels in a live sports environment. In the past 10 years, Crispin automation has been used by several premier networks for commercial insertion where last minute edits aren't just a nice-to-have feature, it's a necessity.

Both NBC Universal network and CBS Sports (combined) have utilized Crispin for more than 20 years in the type of demanding and unforgiving live sports environment that demands flawless, frame accurate performance. Crispin Corporation is also the automation vendor of choice for many other premier sports and news organizations including Altitude Sports and Comcast Sports Bethesda.

Consider some of the key sporting events where Crispin has been the automation system of choice to deliver zero discrepancy ad delivery to recognize billions of dollars of revenue:

- The Masters on CBS
- March Madness and the Final Four
- The Olympics
- NFL Football, including several Super Bowl broadcasts
- And many more

So why does our automation system deliver under these conditions better than others? There are many reasons but here are several of the key architectural distinctions in Crispin that make it all possible:

1) **Database Independence.**
   Add a clip to the video server any time and from any source and Crispin automation can cue it and play it. It's not necessary to use Crispin ingest tools to play a clip! This means last minute additions to the server—and the playlist—can be executed immediately.

2) **TCP/IP-Based Protocols.**
   The shortest pre-roll times are only available utilizing TCP/IP-based APIs or protocols provided by the video server manufacturer. When considering last second edits, the ability to cue and play with an 8 frame pre-roll versus 2 seconds is no small matter.

3) **Multi-threaded applications.**
   Crispin's Device Server is multi-threaded in order to provide critical CPU cycles to the timeline execution engine.

4) **TCP/IP-based Inter-Module Communication.**
Commands sent from master control operator via RapidPlayX travel directly to the Device Server computer, bypassing a relational database required by some automation systems, eliminating a costly and sometimes time-consuming process that can delay on-air operations.

In addition to many more under-the-hood features, both small and large, that adds up to the fact that no other automation system is better prepared to handle live sporting and news events like Crispin.

When you're considering adding a multi-channel centralized master control operation, consider Crispin's track record of providing the best on-air performance available in the industry today.

4. Reliability

Perhaps there's no other single criteria more important for evaluating an automation system than reliability. It's not just a measure of technology and product reliability but also a measure of the quality of support you get from your automation company. We at Crispin understand how important this is and it's why we focus on reliability in all that we do, from sales, engineering, software design, and customer service.

When it comes to delivering on-air reliability, it's not just about being able to run a playlist reliably, it's also about how the system responds when components fail or how to handle seemingly simple processes like a routine scheduled upgrade. In addition to providing a solution that truly delivers 24x7 performance, consider some of the other key advantages the Crispin automation system provides that adds a level of reliability that most automation systems simply cannot match:

1) **Hardware & OS solution using Windows XP Embedded**
   We've designed a hardware platform purpose-built for automation utilizing the most reliable Windows OS option available: Windows XP Embedded, the same OS used for ATMs, cash registers, medical applications, and other systems that require a hardened, "always on" solution. XP Embedded provides the same easy-to-use GUI combined with a framework for removing OS components not needed for automation that can cause performance glitches or even blue screens. Our servers are more than just PCs; they're true automation appliances that deliver both performance and reliability.

2) **Serial Multiplexer with Autofailover (SM/A)**
   Many broadcast devices that have an automation interface only support a dedicated, serial (RS232 or RS422) connection. What happens when the Device Server controlling it is shutdown or has a hardware failure? With Crispin automation, our SM/A product allows for automatic and seamless failover for a mix of both TCP/IP and serial controlled devices. When a failure in the system is detected by the Crispin System Monitor, control is passed to a hot standby Device Server that takes over both serial and TCP/IP control in realtime, without operator intervention.

   Operators can also use the manual switchover feature to perform routine maintenance or upgrades on one Device Server while the other works, keeping your automation system running continuously throughout the process.

3) Driver-based Architecture

The Crispin device control is accomplished by utilization of separate drivers (implemented as Windows DLLs) that attach to the Crispin Device Server. The Device Server utilizes common control commands to our driver and it, in turn, implements the device-specific protocols necessary to control the equipment. The advantages to this approach are several: (a) we can use the same driver in multiple applications, such as Device Server, Dubber and Turbo Browser); (b) we encapsulate all features into a single driver, reducing time needed to enhance or fix problems; and (c) we don't have to update Device Server for device-specific control functionality, streamlining development and testing. All of these reasons add up to one conclusion: greater reliability of device control.

5. True Modularity and Control-From-Anywhere Architecture

A multi-channel operation—and especially a hub/spoke centralcasting model—requires flexibility from an automation system so that new channels can be added or control can be handed off among different locations during shift changes or during an emergency.

Crispin's proprietary TCP/IP-based protocol for inter-process communication allows any RapidPlayX master control application to control any Crispin channel from practically anywhere, even over slow wide area networks. Because of this unique architecture, changes to the playlist do not have to be saved to a central SQL database, ensuring fast delivery of commands and status between RapidPlayX and various Device Servers. In fact, a large station group has tested the Crispin automation network running in a hub/spoke architecture at speeds running at just 64kbs.

Unlike other systems that use remote terminal or KVM applications to share control, Crispin's true client/server architecture for playlist control provides true multi-user control. This allows for more protection for network outages so that a separate off site facility can quickly control and/or monitor those channels with just a few clicks.

6. File-based Workflows

With Crispin automation, you never have to worry about whether or not the material you need for on-air was ingested and timed with Crispin software. If a clip is on the video server, it's always ready to air in Crispin automation. In other automation systems, you have to use the automation suite to ingest the material or time it in order to create a record of that asset in the database and make it ready for use in the system. If your automation system is file-based, shouldn't it let other workflows and asset management systems deliver content to the server? We think so and our system fully supports this yet so few others do.

With Crispin Digital Transfer Agent (DTA), customers also have an automated method for managing multiple file-based acquisition systems including Pathfire, DG SpotBox, Pitch Blue and others. Crispin DTA includes key features not available in third party delivery systems, such as:

- auto-delivery from dub list
- integration with leading transcoding suppliers
- web-based interface with lorez proxies
- auto-transfer from loaded playlist

Best of all, DTA is seamlessly integrated into the Crispin automation asset management system.

7. BXF Integration

Crispin delivered the world's first BXF interface to WGCU in March 2007 with an interface to Myers ProTrack. Broadcast Exchange Format (BXF) provides for realtime delivery of information to and from automation and traffic systems, streamlining both traffic and master control operations. Some of the key benefits of Crispin BXF Service include:

- Eliminates manual handling of files (saving time and reducing errors)
- Improves frame accuracy of traffic schedules by sending updates to timed content realtime back to traffic.
- Realtime AsRun back to traffic, allowing traffic to quickly address issues.

Aside from being a valuable addition to the Crispin automation suite, BXF Service is yet another example of Crispin innovation and our commitment to continually find new ways to solve operational challenges for our customers. As a member of the SMPTE committee, Crispin helped to develop and implement the BXF standard for the industry and we continue to provide new BXF functionality that will extend beyond traffic. When you select Crispin, you're not just getting an automation system; you're getting a partner that understands the importance of being an industry leader in developing lasting partnerships with a variety of vendors in the industry.

8. Built-in Archive

The Crispin Archive Manager is a product that was developed from technology created here at Crispin and is an exceptional value among the myriad of archive, nearline and asset management systems in the marketplace. While we also provide an interface to leading archive and storage management systems, Crispin is one of only a couple of automation vendors with this key offering.

We encourage you to shop and compare our Archive Manager solution with others in the marketplace with this checklist of features and benefits:

- Open architecture for storage (you can purchase ours or provide your own) and we never charge ongoing storage management fees.
- No third party storage management software or systems required.
- Optional hierarchical storage management (HSM) with Blu-ray or LTO to ensure that you never run out of space.
- Integrated transcoding for lorez proxies.
- Auto archive and auto restore from playlist.
- Seamless integration with automation asset management and on-air modules.
- And much, much more.

9. Architecture and Features Designed Specifically for Multi-channel Operations

While many automation systems provide the capacity to run multiple channels, the Crispin automation suite was designed from the ground up to handle multiple channels and do so in an environment where those channel configurations may need to change from one master control workstation to another (wherever they're located).

In addition to this ability to control any channel from any location, consider the list of features below that were designed specifically for master control operators to efficiently handle multiple channels in demanding environments that includes live news and sports:

- Digital Join-in-Progress
- File Cabinet
- Alternate Breaks
- Cross-application Drag-and-Drop with TurboBrowser
- Multi-channel Emergency Network Break-in
- Emergency Channel
- Multiple time zones
- Primary and backup source control
- Manual and Auto Source Swap
- General purpose GPI triggers
- Multi-tab workspaces with independent display configurations
- Multi-channel playlist linking and auto-linking
- And many more…

10. Lowest Overall Cost of Ownership

At Crispin, we understand that the primary need for automation is to significantly lower operational costs and this is where we're able to deliver year after year. With Crispin, not only are you getting a world-class automation system, you're getting the best value in the industry. Crispin has the lowest full cost-of-ownership among all leading automation vendors when you include these key factors of ownership and advantages of the Crispin value proposition:

1. **Crispin 4 Life**
   When we first added this innovative free 7 year support program in 2006, people thought it might a gimmick or a short-lived program. Instead, after four years into this support plan, we continue to offer this simple, yet powerful proposition: for the first 7 years of ownership we will provide 24x7x365 phone and e-mail support and software updates/fixes at no charge. No other leading automation company comes close to this.

   And while it may seem unusual to some, we think it simply makes good business sense. If you need help with using your system or need a software patch, who should pay for this? We think your automation company should. Our support program isn't just about dollars and cents (important as that is), it's about our customer focused philosophy about delivering on our promises and fulfilling our commitment to operational excellence.

   And make no mistake, the support that is included is not a separate team or tier of service, it's our premium support of dedicated TV and IT pros that work here in our headquarters to serve you. No calls to foreign countries or complicated help desk hassles; just qualified, in-house customer support engineers taking your call to assist immediately.

2. **Three Year Full Hardware Warranty**
   Not only is our hardware solution built with dual power supplies, RAID protected dual hard drives (optional), and XP Embedded, we back it with a 3 year hardware replacement warranty.

3. **Low Operational Costs**
   We've made our system easy to use and, therefore, inexpensive to operate. Because of the modular architecture, you only have to purchase what's needed and you can expand incrementally as required. When you add the factors of reliability and performance, we're confident in saying what our current customers already know: we have the lowest ongoing operational costs among any of the leading automation vendors.