

A WHITE PAPER:

Audio Video Control Integrated with Point of Sale

A Little History

Sports as entertainment has always been popular, both as a method of release of energy and as a source for non-work enjoyment and relaxation. Until the advent of radios, most people that enjoyed a particular sport would buy tickets and watch the event live. Radio, the first ‘live’ sports entertainment medium was used in the early to mid-twentieth century as the means of entertainment in local pubs, etc. The popularity of television starting in the mid 1950’s opened up a new and more dramatic form of ‘live’ entertainment.

“Live” entertainment
growth

It was not until the mid- 1970’s that the idea of having live, multiple televisions in bars came to the front. With the advent of cable and satellite the circle of being able to view multiple games became possible. The usage of more lightweight material allowed bars to have many units in operation in many different angles and locations.

The birth of sports bars; locations that offer this entertainment to the sports fan along with normal or up scale food service has taken place and has taken off.

Sports Bars are a very popular entertainment venue across North America and Europe. Sports Bars can typically possess 10 or more TVs and audio systems attached to numerous Cable and / or Satellite TV feeds to provide live feeds of various sporting events to the Bar / Dining / Waiting areas. These sports bars are not just in large cities, but in small towns and rural communities. They serve not only as a gathering place for sports enthusiasts, but also as a community meeting place.

Technology matures and
demand increases

Simplifying Audio Video Control in Sports Bars

The owners of these establishments must make a substantial investment in technology, the technology that the Restaurateur needs to be able to provide their patrons with a dazzling display of entertainment choices. Each sporting event provides a unique opportunity to draw a crowd into the facility to enjoy the game and root for their team. However these systems are seldom simple to control. A common sight in the manager’s office or even at the bar may be a stack of remote controls for various AV units, only some which work, others with dead batteries, etc. Additionally, with numerous satellite feeds coming into the facility, it is commonly not straightforward to route the correct signal to the correct TV or more directly, which device works with which AV unit. Only a few staff may have taken the time or have the interest to know how to manipulate all the necessary controllers to make the system run as desired. Even fewer still may be working when a patron makes the simple request to change the game on his TV to what’s being displayed across the room.

Technical issues for
non-technical businesses

Typical staff help unlikely
to manage technology
well

Although these systems are typically thought to be straightforward from a TV/Audio perspective, the introduction of multiple Satellite feeds multiplexed to several Video displays adds a degree of complexity that often prevents simple changes without proper training. Dining Room and Bar staff are typically ill equipped to perform such simple matters as changing a channel or adjusting the volume. TV remote control units, if available, may not be able to control all of the variety of devices found in the facility, and most likely cannot be used to change the routing of satellite feeds to the A/V system components. Alternately, due to the complexity of the system, Dining/Bar staff may be forbidden by management to attempt to make any changes.

Due to the complexity that occurs in a sports bar environment a separate technology center might be needed to run the complete audio / visual control system. This investment is usually quite substantial and usually locks out the mid-size players (and the smaller players) from investing in such a large system.

Light Control

Ambiance control

Control of facility lighting and scene management can also be an issue for the sports bar. If the facility incorporates windows, interior lighting may need to be adjusted to facilitate easy viewing of daytime events as light conditions change, and then may need to be readjusted for nighttime events. To insure consistent settings, automated control is essential, but may need to be overridden by staff as conditions dictate.

The Challenge of Audio Video Control

Current A/V systems
growing more complex

Audio / Video Control System Manufacturers have developed a wide range of sophisticated touch screen control panels for their systems. However, the design of these touch panels typically do not take in the account the needs of a sports bar environment. These systems are frequently “over the top” in terms of control needs. The sophistication and customization of these systems often dictate that employees must go through one or more training sessions on their use. In addition, these control panels compete for space with the AV systems and the POS. The additional cost of these controllers is also a significant factor, competing for limited technology dollars at each facility.

The Sports Bar needs a solution that allows authorized employees the ability to make changes to the system without having to become an expert on Audio Video control. The functionality needed by Restaurant Staff during normal operations include:

- Changing the Channel (which includes switching satellite feeds)
- Changing the Volume on a TV or Audio System
- Turning Devices such as TVs, Audio, Lights, etc., On & Off
- Controlling a DVD player

Utilizing Point of Sale Systems

POS systems not designed for task interchange

One of the major investments for any facility that offers food and drinks including Sports Bars, is in Restaurant Point of Sale Systems (POS) to efficiently manage patron services, kitchen operations, labor, and inventory. The POS is typically deployed with Touch Screen terminals located throughout the facility for easy access by servers, bartenders, and managers. The POS system typically incorporates security which limits who has access to each feature on the POS. Although systems vary, most POS systems used in Restaurants today feature POS Software utilizing an operating system such as Microsoft Windows or Linux. These systems can commonly support operation of multiple applications. At this time there is no interchange or collaboration between existing POS systems and the Audio / Visual Control systems.

A Unique Solution – Integration of Audio / Video / Light Control with POS

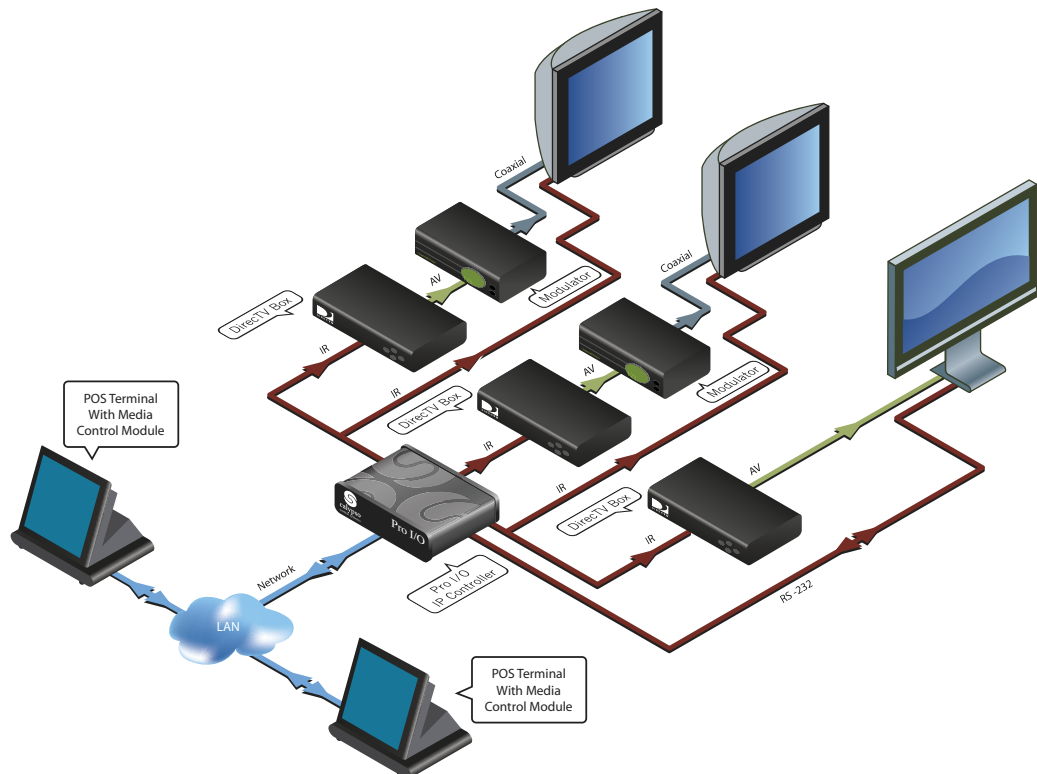
POS systems are logical tools for A/V control and already in use by businesses

The Restaurateur should be able to leverage the (major) investment in his Touch Screen Point of Sale System to control his Audio / Video / Light Control systems. By loading an additional application onto the POS, POS users should be able to access a software application which gives them simple control of all the TV's, satellites, audio, and lights within a facility. Key benefits of utilizing POS to control Audio Video Systems include:

- Security – POS Systems typically employ secure logins, which can be used to control who has access to the AV control system functions
- Placement – POS Touch Screen Terminals are strategically placed on the floor of restaurants where diners are located for each of access by the staff.

The illustration shows the relationship of the various system components.

Illustration - Using POS to control TVs in a Sports Bar



The solution consists of the following components:

- Your existing Audio Video System
- Your existing POS System
- Lone Tree Audio Video Light Control Software loaded onto your POS System
- One or more Calypso Pro I/O controller units, which connect directly to each TV, Audio System, or Light System via InfraRed, Serial Port, Relay, or IP address.

The Lone Tree Solution

POS and A/V integration tool has been created

Lone Tree Technology, in conjunction with Calypso Control Systems, has developed a solution designed to operate with your POS system in order to provide the Restaurant Staff with the ability to control the Audio Video System within the facility without having to have specialized knowledge or a large investment in resources. The solution works as follows:

- A Restaurant employee with the proper security logs on to a specific POS terminal as normal, and navigates to the A/V Control Panel or Submenu.
- The employee activates the system via the touch of a button. A floor plan of the restaurant is displayed, showing the floor plan perspective from the terminal (i.e. view of the bar from the bar terminal). All the TVs on the floor plan are displayed.
- By touching a desired TV icon, the employee can then choose from a list of commands similar to a TV remote control. Such commands (configurable) would include:
 - o A selected list of channels such as ESPN, Fox Sports Network, NFL Network, etc.
 - o Volume Controls for the TV or Audio System associated with the TV
 - o On/Off Controls for the TV
 - o 10 Key Pad to perform direct channel input, if desired.
- A typical scenario would allow the employee to select from a list of 10 or 15 different TV channels, even across various satellite feeds (assuming a signal router is in place), control the volume, and turn the device On and Off.
- By touching on the desired command, the software would send the command to the TV or other device as needed via the Calypso controller.
- The employee may then use the POS to perform any normal POS function as needed.

Advantages of the Lone Tree Solution

The Lone Tree Solution presents several advantages to the Restaurateur:

A POS bridge for A/V collaboration is a cost effective extension of current POS systems

- Simplicity – Any employee with appropriate access to the POS can easily manipulate the various Audio Video System components with little or no training.
- Control – The Lone Tree solution allows you to strictly control what employees can do with the system. You can limit what channels can be selected and what features can be controlled.
- Security – By utilizing the security of the POS, AV Control can be limited to select employees as needed.
- Access – By utilizing the POS, AV Control can be achieved from any POS Terminal.
- Cost – By utilizing the POS, the cost of additional AV control panels is eliminated.
- Space – By utilizing the POS, wall space for additional AV control panels is not needed

Learning more

To learn more about Lone Tree Audio Video Light Control System for POS, go to our website at www.LoneTreeTechnology.com

To learn more about Calypso Control Systems and their line of I/O Controllers, go to Calypso's website at www.calypsocontrol.com