

Iowa House of Representatives Automated Video System Proposal

Rev 0 – A Draft Proposal



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“Legislative systems and their support is our only business”

1. INTRODUCTION:

International Roll-Call proposes to provide an automated video system to be installed in the Iowa House Chamber. This is a draft proposal. IRC would be pleased to enter into discussions of this proposal and to make requested revisions.

The general overview of the proposed project is:

- IRC will install three video cameras in the Chamber to capture session activity.
- IRC will link the control of the camera to the microphone on/off controls.
- IRC will automatically mix the camera feeds based on microphone controls.
- IRC will add bill number and member names to the video stream.
- IRC will deliver the mixed, captioned session video to a central point for export.

AT the export point the Iowa House will control access to the video provided by the IRC video system. Possible uses for the video include providing it on the Iowa Legislature web site, sending it to Iowa Public Broadcasting, and letting local networks tap into the feed for news segments and special events.

International Roll-Call installed the Iowa House voting system (via acquisition of Daktronics voting system business). The voting system includes the Request to Speak sub-system, which turns microphones on and off. The action of turning a microphone on or off already occurs in the House Chamber and requires a sound operator dedicated to that task.

When you give some thought to when a camera should be engaged you realize that the instant a member is allowed to speak is the instant at which you would want a camera to point to that member. Utilizing a separate camera operator to point a camera to the member for which the sound operator just turned on a microphone is essentially duplication of effort.

IRC will automate the camera system so that the sound operator has few additional responsibilities as a result of linking the camera controls to the microphone on/off controls. A joystick camera control station with a built-in television monitor will be located next to the sound operator. This station provides positive feedback to the sound operator. As the operator turns microphones on and off, the sound operator will be naturally drawn to glance at the television monitor for confirmation that the correct microphone was turned on or off.

The joystick station is used occasionally by the sound operator to adjust a particular camera shot to re-center a member in the television monitor. This could be a temporary adjustment in which a member happens to be speaking from a slightly different position than normal. Or the adjustment could be permanent in which the sound operator moves the camera a bit with the joystick, then “saves” the new setting so that the setting is used for all future times when that member microphone is turned on.

The camera system is designed to pan, tilt, zoom, and focus a camera onto a member within approximately one second after the sound operator turns on a member microphone.

Members and staff in the House Chamber recognize other members by name, and do so instantaneously. Anyone in the general public watching the video feed will recognize a few of the members at most. Therefore it is important to add the name of the member to the camera shot of the member. The IRC video system, using its direct link to the IRC voting system, writes member names directly below the members that are on camera, and does so almost instantly after a camera has finished panning, zooming, tilting, and focusing on a member. Everyone in the general public will hear the Speaker recognize member to speak. The member will appear on camera, then the member name will appear to re-enforce the member name announced by the Speaker. As the member continues to speak, the member name will remain on the video feed as long as the member remains on camera. At all times the general public will be able to put a name to the member making the remarks.

Occasionally two members may debate or engage in a question and answer session. During these debates, two member microphones are turned on at the same time. Two cameras will be mounted on the front wall so that each of the two debating members will have a camera pointed to him or her. In order to minimize sound operator input and to make the debate “flow” on the video feed, IRC will compress the two camera feeds into side-by-side images on a single video feed. This dual-talking-members feed eliminates dancing back and forth between the two members as the debate or question/answer session progresses. The sound operator simply turns on two member microphones and lets the automated video system do the work.

The two cameras mounted on the front wall will be to the left of center and to the right of center, possibly in the neighborhood of the existing Plasma displays on the front wall. Presuming that a member faces the Speaker or turns toward the center aisle to face the majority of the members when speaking, the left camera should point to members on the right half of the floor. The right camera should point to the members on the left half of the floor. The front wall cameras essentially shoot over the Speaker’s head in a crossing pattern.

When the first member microphone is turned on, the video system will engage the appropriate camera for the “over the Speaker’s head” shot. If a second microphone is turned on, the video system will send the remaining camera toward the second member, all automatically.

The third camera will be mounted on the back wall to provide a camera shot of the Speaker, Clerk, and dais. This camera can be set to provide close-up shots of the Speaker and Clerk, queued by whichever has their microphone turned on, or could be a wider shot to catch both the Speaker and Clerk simultaneously to avoid bouncing between camera shots during introduction of bills and similar events when the Clerk and Speaker are likely to be speaking rapidly back and forth. IRC will work with the House to determine the best control input for this third camera.

2. MATERIALS AND SERVICES:

International Roll Call proposes to provide the following materials and services:

- Three (3) each Vaddio HD-20 cameras with integrated pan, tilt, and zoom.
- One (1) each AMX NXP-PLV FG630-100 controller with integrated joystick and television monitor.
- One (1) each AMX NI-900 system controller.
- One (1) each RGB video 2-to-1 video mixer.
- One (1) each video switch, minimum of 6 inputs, 3 outputs.
- Four (4) each distribution amplifiers.
- One (1) each Compix CompactCG-HD video character generator
- One (1) each Compix AutoCast software to provide remote control to the CompactCG-HD.
- One each open frame wall mount 19" rack, approximately 20U.
- Control cable and installation of control cable.
- Interface to the voting system microphone control functionality.
- Engineering, project management, and administration.
- Installation.
- Configuration and programming.
- Video system testing.
- Operator training.
- Maintenance training.
- Total IRC site time of not more than 10 consecutive man-days. Additional days to be negotiated and billed at published labor and expenses rate.
- One (1) year warranty.

International Roll Call proposes that the Iowa House of Representatives provide the following materials and services:

- Provide and install conduct as needed.
- Penetrate walls and floors as needed to route cable to camera locations.
- Provide and install any millwork.
- Provide and install power in the equipment room as needed. Cameras are powered from the equipment room via low voltage cable so 110VAC is not required at camera locations.
- Timely access to the House Chamber and to the equipment room, etc. to control number of site days required.
- Operate the voting and audio system for testing purposes including backing up and restoring the voting system database to assure no data corruption during testing.

Budget price for video system as outlined above \$112,530.00

3. VIDEO STORAGE AND WEB BROADCAST

International Roll Call is proposing to acquire video in the House Chamber via three cameras, merge the video from the three cameras into a single stream that closely represents the activity in the House Chamber, and then caption that single stream. The proposed video system is designed to perform this functionality on a continuous basis with the existing House staff, and without any appreciable extra effort on the part of the House staff.

The single stream video is available at an output jack on the IRC video subsystem. At that point the single stream video can be routed (along with the Chamber audio) to a computer for encoding to a website feed and to video storage and to network television facilities, etc. IRC stands ready to give advice to the Iowa House of Representatives regarding the handling and distribution of this single stream video feed. This advice includes recommendations for distribution amplifiers, recommendations for pushing the video stream over long distances via fiber optic equipment, etc.

IRC advises that the Iowa House look at the products and services offered by Granicus:

- for the live website broadcast of this single stream video
- for the archival storage of this single stream video
- for the website replay of this video

Granicus has a great deal of experience in video distribution and storage so their offering has a good probability of satisfactorily meeting the desires of the Iowa House of Representatives.

On the other side of the coin, Granicus is not the only option available for website broadcasting and video storage. There are other companies that IRC is not immediately familiar with that offer products and/or services. The Iowa House could elect to utilize products and/or services from other companies in conjunction with in-house resources to meet the web-casting and storage desires of the Iowa House. If the Iowa House is leaning toward doing the web-casting and storage in-house, a review of the Granicus products and services would accelerate the in-house resources up the learning curve.

4. IRC VIDEO EXPERIENCE

At IRC, Legislative Systems and their support is our only business. IRC is intimately familiar with the activities in House and Senate Chambers. In fact we are familiar to the extent that we can point out similarities and differences from one state legislature to the next. Video systems are not the core business of IRC, but we know what a video system needs to accomplish in various state legislatures. We can design and integrate video systems to meet those needs. We have the service organization in place to support them.

Over the years, IRC has sent current bill and amendment information to several different video character generators in at least 15 House and Senate Chambers. Interfacing to video systems at this level is a common occurrence for IRC.

IRC has installed several camera systems over the years. Some of these have been replaced as a result of chamber renovations and some have been replaced by technology updates (some due to the advent of HD).

The system architecture in this proposal is very similar to the video system that IRC installed in the Illinois House of Representatives about 10 years ago as an NTSC video system. The Illinois House has since moved up to new technology as part of a significant chamber renovation.

IRC installed a video system in the Maine House of Representatives about 6 years ago that has parallels to the system offered in this proposal. The cameras and pan, tilt, zoom units were time-tested technology. The cameras and PTZs utilized a video controller that did a good job meeting the needs of the Maine House of Representatives. Technology has advanced since then, so there are technical opportunities to enhance that system.

IRC installed a video system in the Rhode Island Senate in conjunction with the Legislature's Radio and Television group. This group is a state "agency" for lack of a better term. They have broadcast quality equipment and a production studio funded by the state that rival what would be found at any network television station. IRC offered to automate three cameras in the Senate Chamber so that camera operators would no longer be required at each of the three camera locations. The Senate Chamber is small. The cameras on tripods with the operators behind them took up too much of the valuable floor space. With the Radio/TV agency cameras mounted on IRC pan, tilt, zoom units, IRC video controller, and IRC software operating as a pseudo "microphone on/off" station, one person now operates the entire video system from a room in the Capitol basement. The Radio/TV agency personnel were not happy initially that their camera operators were ejected from the Senate Chamber by the President of the Senate. When IRC finished the project and the Radio/TV personnel gained experience with the system, the Radio/TV personnel became our best salesmen on the merits of the project and the quality of the results.

5. DELIVERY, PAYMENT SCHEDULE and WARRANTY

Delivery:

- Sixteen (16) weeks after notice to proceed.

Payment schedule:

- 40% with order.
- 40% upon delivery of all major components.
- 20% upon installation and demonstration.

Warranty:

- One (1) year on video system.

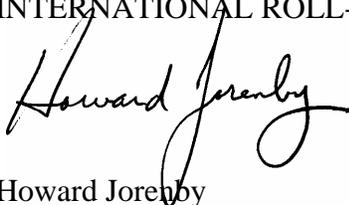
The prices in this quote are valid for 60 days.

Taxes are not included.

All orders are subject to final acceptance by INTERNATIONAL ROLL-CALL CORPORATION management.

INTERNATIONAL ROLL-CALL CORPORATION appreciates the opportunity to provide this proposal to the Iowa House of Representatives. Please call me if you have any concerns.

Sincerely,
INTERNATIONAL ROLL-CALL CORPORATION,



Howard Jorenby
EVS Systems Engineer