

CASE STUDY

# Swedish Film Institute



A user friendly AV system bridging the past and present of Swedish film.

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SHOWCASING CINEMA HERITAGE

# Swedish Film Institute





**CUSTOMER NAME** Swedish Film Institute

LOCATION Stockholm, Sweden

**INDUSTRY** Cinema

# Q-SYS Helps to Unite the Past, Present, & Future of Cinema at **Swedish Film Institute**

Since 1963, The Swedish Film Institute has had a mission to support the production and screening of new films, represent Swedish cinema at an international level, and preserve and promote Sweden's film heritage. They provide funding for filmmakers, screen films that are not commercially available to the public, and have curated an extensive archive of films dating back to the 1900s. They further contribute to the art of cinema by digitizing their archive so it can continue to be appreciated by the audience of tomorrow.

Working closely with the Swedish film industry, the institute has taken it upon itself to act as a reference facility where filmmakers can conduct test-screenings

with the assurance that both the sound and image are always accurate. To maintain its commitment to the industry, and to continue to best serve filmmakers, the institute felt it was time they modernized their largest, 359-seat cinema, dubbed 'Victor'. After successfully installing Q-SYS in a smaller screening room, they decided that the Q-SYS Platform and the control features it offers would be ideal for the renovation of their main cinema.

Q-SYS offered us a long-term solution we trusted with predictability, ease-of-use, and stability that has helped us align with what we feel the Swedish Film Institute should be.

Jerry Axelsson, Projectionist Supervisor, Swedish Film Institute





# Challenges

### MODERNIZING CINEMA, MAINTAINING HISTORY

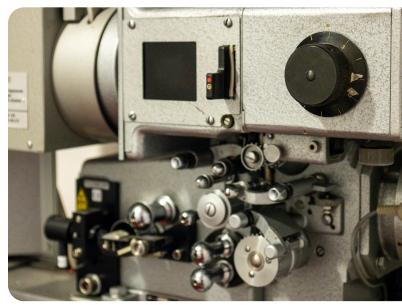
The acoustics in the cinema hadn't been updated since the 80s. This meant the system had to be equalized, and in such a large auditorium this would be guite the challenge. It was therefore decided that the design would need to include entirely new audio amplifiers, processors, and loudspeakers. However, as a multifunctional facility, the institute couldn't go 'all in' on cinema when redesigning the space. They needed an audiovisual system that could not only deliver outstanding cinematic experiences, but also support the delivery of conferences and cultural talks.





The institute's team were familiar with a manual control system and were hesitant to switch to digital. Integrating the old and new technology into a manual control system would have been exceedingly complex, so they needed a simplified digital control system that was user-friendly but still offered high levels of control.

The institute frequently screens 35mm and 70mm material alongside contemporary films, and when it came to modernizing their cinema, they wanted to ensure it kept this historical functionality. This meant the AV system needed to be able to support the screening of both analogue and digital films, and undoubtedly the biggest challenge they faced was finding a solution that could simultaneously support the old and new technology and allow them to swap between the two seamlessly.







## Solutions

### THE SILVER SCREEN DEMANDS SUBLIME SOUND

The institute was familiar with Q-SYS amplifiers and loudspeakers, having previously equipped one of their smaller screening rooms with them. They had been receiving great feedback on the sound quality in this room, which led them to select the Q-SYS SC Cinema Loudspeakers Series and SR Cinema Surround Loudspeakers Series as a perfect fit for their larger cinema. "People really appreciate the sound," says Jerry. "They think its lifelike and realistic. They think it sounds nice and powerful." The integrator, Cinema Design in Sweden, also felt Q-SYS would be the institute's best option. Mattias "Tia" Marklund, Chief Technician for Cinema Design in Sweden, explains the Q-SYS series of Digital Cinema Amplifiers were chosen for their hum-free noise floor and ultra-low distortion. "Because this is a reference auditorium, we went with the O-SYS amplifiers to keep the noise floor down. We know how important it is for the 'silence' here to be absolutely silent."

### IN WITH THE NEW, AND THE OLD

The institute uses the cinema to showcase films in a wide variety of formats, from 35mm classics to modern digital blockbusters. "A typical day for us could start with the screening of a new film with Dolby Atmos, followed by a silent film screening that uses our Steinway piano; there is this constant back and forth" explains Jerry Axelsson, Projectionist Supervisor at the Swedish Film Institute. A 'brain' was needed that could work as a crossover, receiving signals from all the different audio processors and ensuring they were processed correctly. The whole system is controlled by a pair of Q-SYS Core 610 processors. Tia continues: "In the middle, we have this Core 610, which we have connected to the Dolby CP650 for 35mm, the Dolby CP200 for 70mm, and so on. Everything goes through the core where we have put all the equalization and calibration, so you should have the same experience whether you're listening to 35mm, 70mm, or Atmos."







# **Solutions**

### DIGITIZED ANALOGUE CONTROL

Not only did Q-SYS provide the means of equalizing and calibrating all the different audio processors, but it also provided the means of controlling them. Initially, there was some understandable apprehension from the institute's team surrounding the use of a digital system, as they were so familiar with a manual one. To alleviate any concerns regarding the transition, interactive touch screen panels were placed inside the auditorium, with a custom-designed user control interface that simulated the buttons the team used in their manual control system. "It's still the same buttons you push," says Tia. "When you want 35mm, you push the 'CP650' button."

Lillebjörn Gyllfeldt, CEO of Cinema Design in Sweden, added: "We showed the team that, with Q-SYS, you get so much more than a sound processor with a volume knob. We integrated a touch panel inside the auditorium, with a button layout that had been decided by the team. They don't have to change any cables to switch between their different sound systems; they can just push a button."

### NO SECOND TAKES

The institute needed a completely reliable, fail-proof AV system. The two Core 610 processors, one primary and one standby, constantly communicate with each other and the peripherals to verify system health and synchronize control settings.

Surveillance functions within the Q-SYS system lets the team know if any peripherals aren't functioning properly. "That was another big thing for us in deciding on Q-SYS," says Jerry, "to have the ability to see if something is faulty or not working properly."

The same surveillance functions also enable the Cinema Design team to securely access the Q-SYS system remotely and keep down-time at a minimum. "If they have a problem, they can call me and I can connect remotely to the Core and follow the audio chain from beginning to end, see what's wrong, and eliminate the problem within minutes," Tia illustrates.







# Solutions

### WITH THE FUTURE IN MIND

As a governmentally funded entity, the Swedish Film Institute wanted a sound and reliable AV investment. "What we do here, we see as an ongoing collaboration with the industry. So, when we do something, we think long term," says Jerry. It was consequentially crucial that future proofing was built into the AV system, and the institute knew that the Q-SYS system could be easily expanded. Jerry adds, "Q-SYS provides a tailored and flexible system which allows you to expand its functionality even after the installation is done." Looking ahead, the institute has plans to implement automations for their projectors, lighting, and doors, and with Q-SYS at the heart of the system, they know they can do this with minimal additional investment.







# **Equipment List**

Model	Pcs Used	Description	lmage
<u>Core 610</u>	2	Q-SYS Audio, Visual and Control Processor Configurable onboard I/O via 8 open Q-SYS IO Cards slots Networked Channel Capacity: 256 × 256	
SC Series Cinema Loudspeakers	5	2-way, 3-way, and 4-way Screen Channel Loudspeakers Low-distortion waveguides provide highly articulate dialogue	
SR Series Cinema Surround Loudspeakers	42	High Performance Surround Loudspeakers Low impedance rating Directivity Matched Transition® (DMT)	
SB Series Cinema Subwoofers	8	18-21-inch Cinema Subwoofers Designed specifically for low frequency enhancement in cinema applications	
DCA Series Cinema Amplifiers	30	2 and 4 Channel Digital Cinema Amplifiers PowerLight® Switching Technology Hum-free noise floor and ultra-low distortion	「



Q-SYS is a globally recognized manufacturer of audio, video and control (AV&C) solutions for huddle rooms to stadiums—and everything in between. Our systems make it easy for your team to design and integrate flexible, scalable solutions and deliver the native IT integration and standards-based technology your customers expect.

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