



Proyecto Modernización Sistema A/V para Auditorio ENP(Avila)

Teldrive Telecomunicaciones SL, Destreza 3 D15, Getafe, Madrid <http://teldrive.com>

In February 2022, an ambitious AV improvement project, which began in 2019 and was slowed down due to COVID, was completed

The National Police School of Ávila has the annual challenge of training an average of 3000 National Police as well as other state security bodies: Urban Police, Frontex etc. For this educational activity it has an Auditorium of 1000 seats or an area of 1500 m², Congress Hall of 150 seats or 400m² and more than 70 classrooms distributed in different buildings of the complex.



Built in 1985, it had slight improvements since then: the lighting in the room had been changed from incandescent bulbs to CFL (low consumption) a total of 150 30wat bulbs of which 40% were not operational due to the difficulty of access for their replacement. On stage there were 3000 wat halogen spotlights that as you can see in the photo (2018) dazzled the projection screen, for that reason they had little use. There was a 6000 lumen projector

From the outset, numerous A/V infrastructure deficiencies were identified:

- Front speakers that distributed audio poorly, especially in the side areas and on stage
- 6000 lumens Video Projector, which made it incompatible to turn on light when projecting
- Weak audience lighting, which, although it undoubtedly favored the projection of low luminosity, made it difficult for the students to take notes
- Halogen stage lighting (not dimmable)
- Obsolete (relay) and inoperative RGB lighting control systems
- Component video signals that ensured signal quality up to the projector, 80m away from the technical room

Progressively and in different stages phases, all of them have been improved,



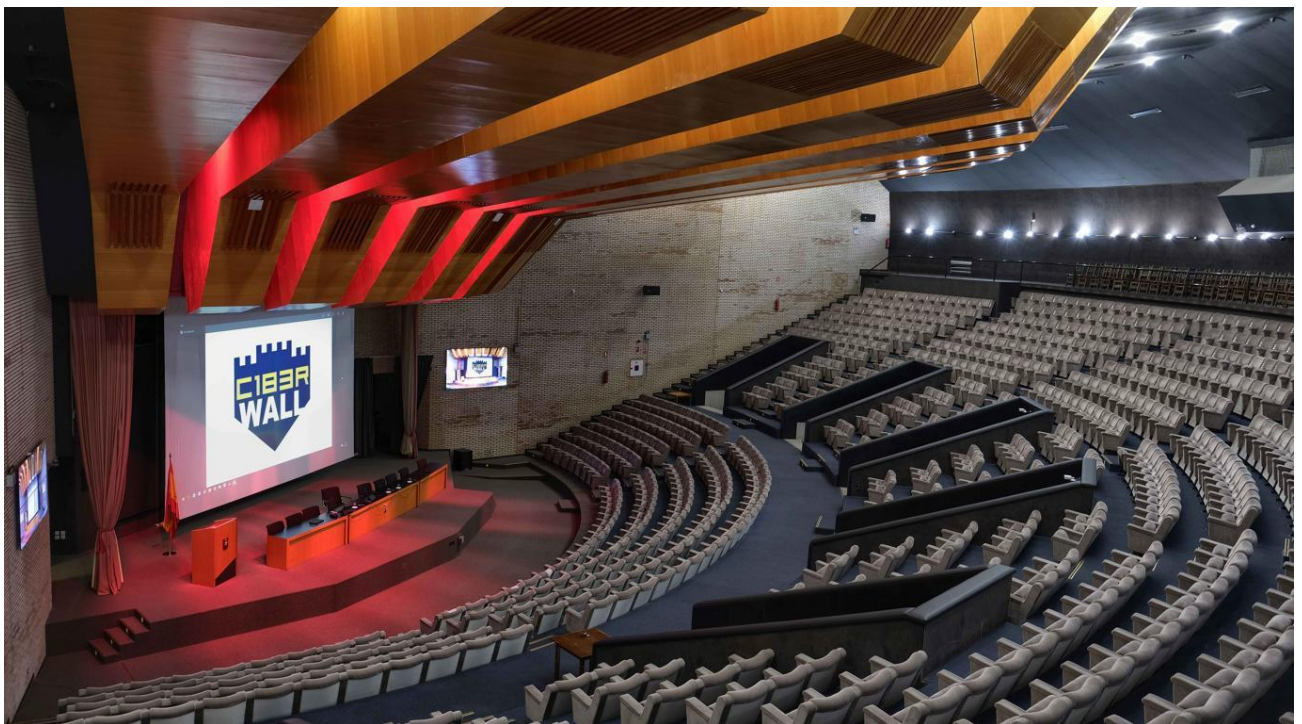
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Lighting Upgrades



The replacement of CFL's with LED lighting together with the commissioning of all the bulbs in the room radically changed the appearance of the venue as can be seen in the attached photos. 12 RGB photos controlled by DMX were installed that also contributed to the color of the stage

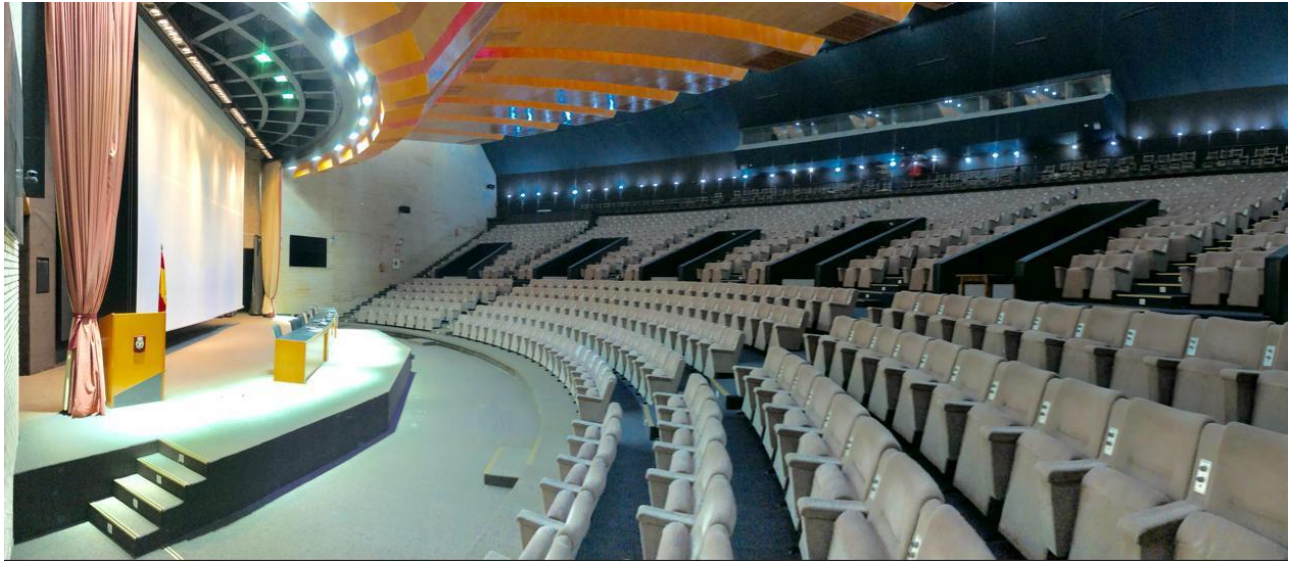


The stage halogens were also replaced by dimmable LED spotlights



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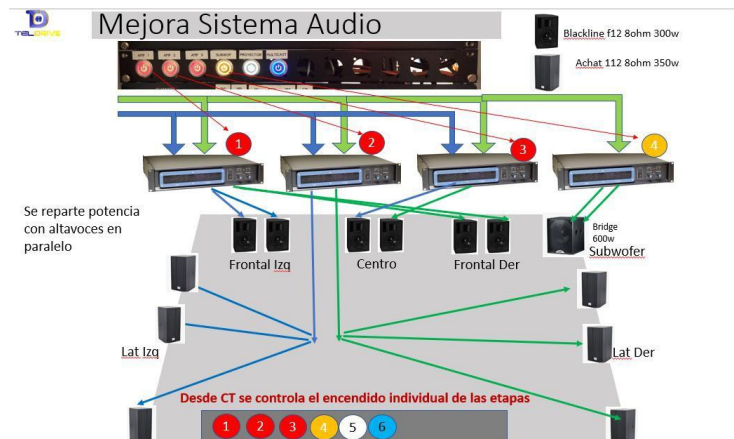


Audio System Improvements

With the installation of 3 speakers on the two sides of the auditorium, it has been possible to distribute the sound evenly in the room. No power increase was required, only the connection of the new speakers was balanced.



From the technical room, the individual power stages are independently controlled



A subwoofer has been added to the enclosure to reinforce low frequencies.

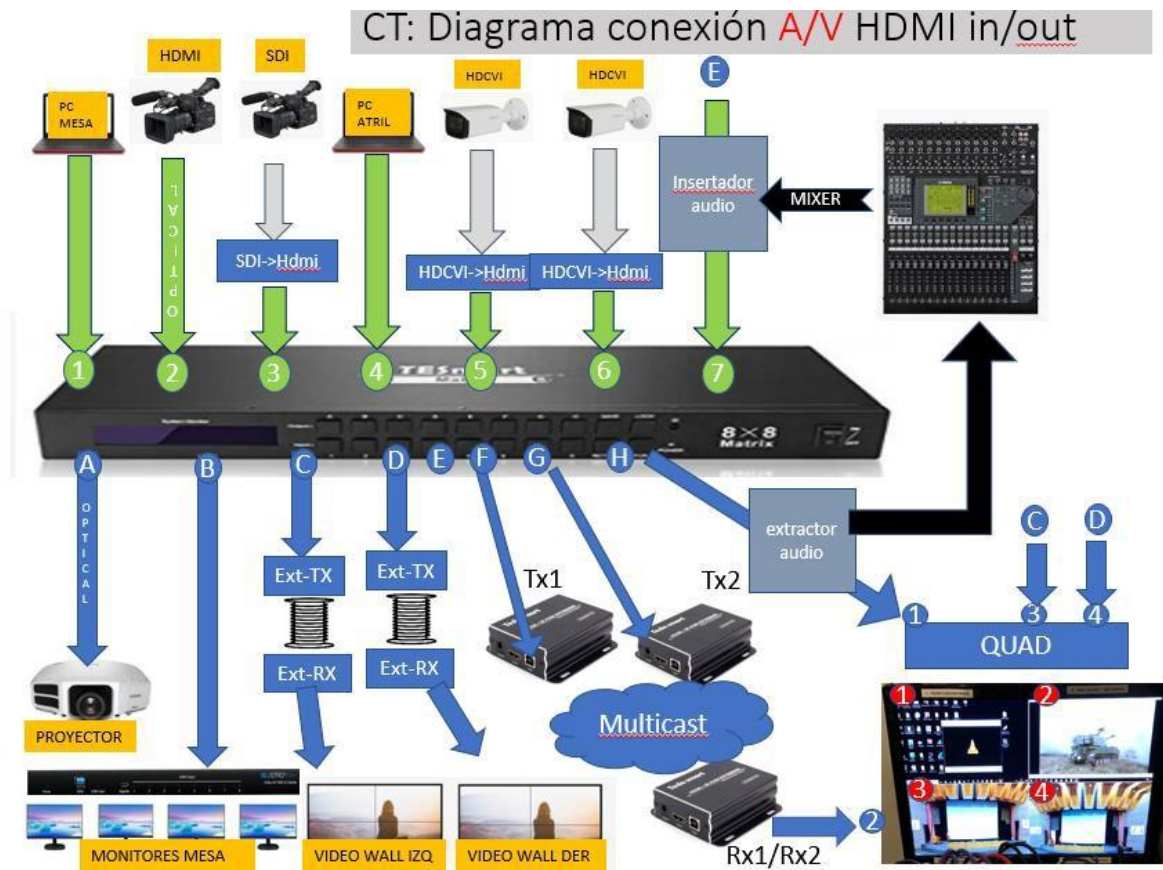


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Cabling improvements

The room was equipped with optical HDMI cables, thus avoiding the use of complex adapters that limited their use with distance in addition to increasing the capacity of the resolution supported by the connections



LED Display

The installation of the LED display was completed in February 2022. It was carried out in several stages as the stage had an acoustic wooden hairpiece that prevented its installation on the wall of the stage





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It was necessary to assemble a steel structure that would guarantee a separation from the wall, facilitating wiring and correct cooling of the modules



Without a doubt, the dimensions (10mx6m) of it posed problems of power supply (30Kw), installation, cooling, etc... All of them were solved efficiently and with very satisfactory results in the most critical part of an LED screen "flatness"



Attached here is a video summarizing the achievement <https://www.youtube.com/watch?v=1cCaBMYP-Y>



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Technical room improvement

In parallel to all these improvements, the technical room was reconfigured, which demanded new needs for control equipment, especially in the video part, since the contents that were viewed had to be monitored before their presentation

