



AVL Design Co.,Ltd.

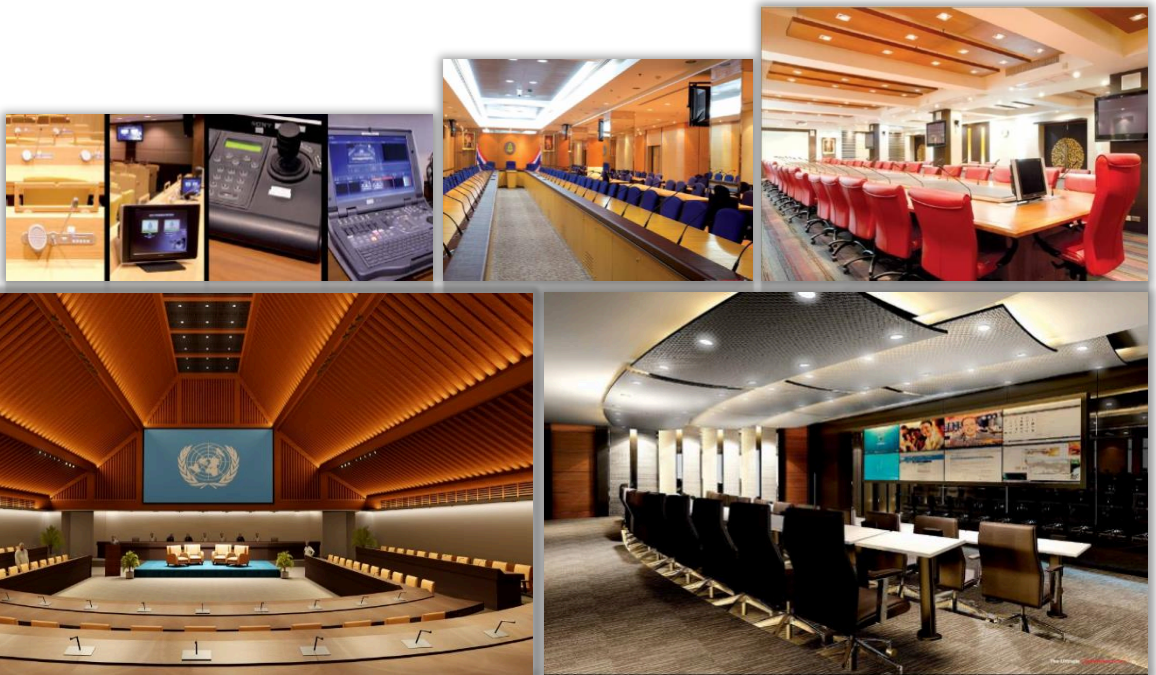
บริษัท เอวีแอล ดีไซน์ จำกัด

Company Profile



Our Company

AVL Design Co., Ltd. was incorporated by a group of engineers, architects, and interior designers, to serve the public as an audio-visual, lighting, and acoustics specialist. We aim to provide consultation and design works in the engineering field of audio-visual, lighting, and acoustics. Since its establishment, the company has been offering those services to both governmental sector and private organization with compelling integrity, standard and passion in our expertise. Our works are present and recognized across the kingdom of Thailand. Our six strategic policies in which our business is conducted upon include:



Human Resource

we treat our people as the most valuable resources. Our policy addresses the need to carefully search, continuously develop, and maintain the hiring. Thus, each position is filled with full-time employees, and currently there are the following in-house professionals in our office:

- Audio engineers
- Visual designers
- Lighting designer
- IT designer
- Acoustics specialists
- Interior Designer
- Professionally-licensed of Engineering Institute of Thailand and Association of Siamese Architects Nationals
- Administration officers, AutoCAD operators, project coordinators

Process Control

In order to provide our client with the best consultation and design that achieve the highest quality while meeting both the standards and safety codes, we implement the following 4 processes:

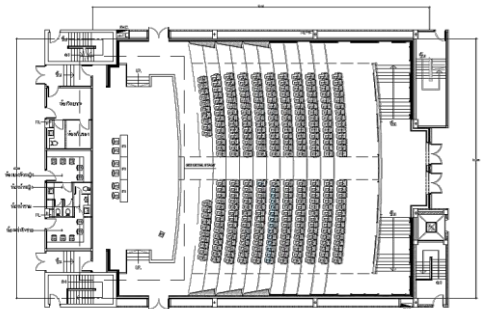
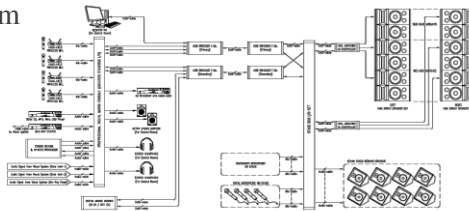
Design Input Analysis - is a process to obtain client's requirement and expectation, which consists of two stages:

- Stake-holders interview
- Site visit



Concept Design - is a process to conceptually form and define the design direction that will serve the client's operational purpose. It consists of three stages:

- Functions of use
- Signal flow
- Block diagram



Design Review - is a process that reviews the current design in order to re-confirm that the design is heading to the right direction, which is to serve the client's operational use

Design Change - is a process to systematically control drawings variation and specification in order to create the correct design package and documentation

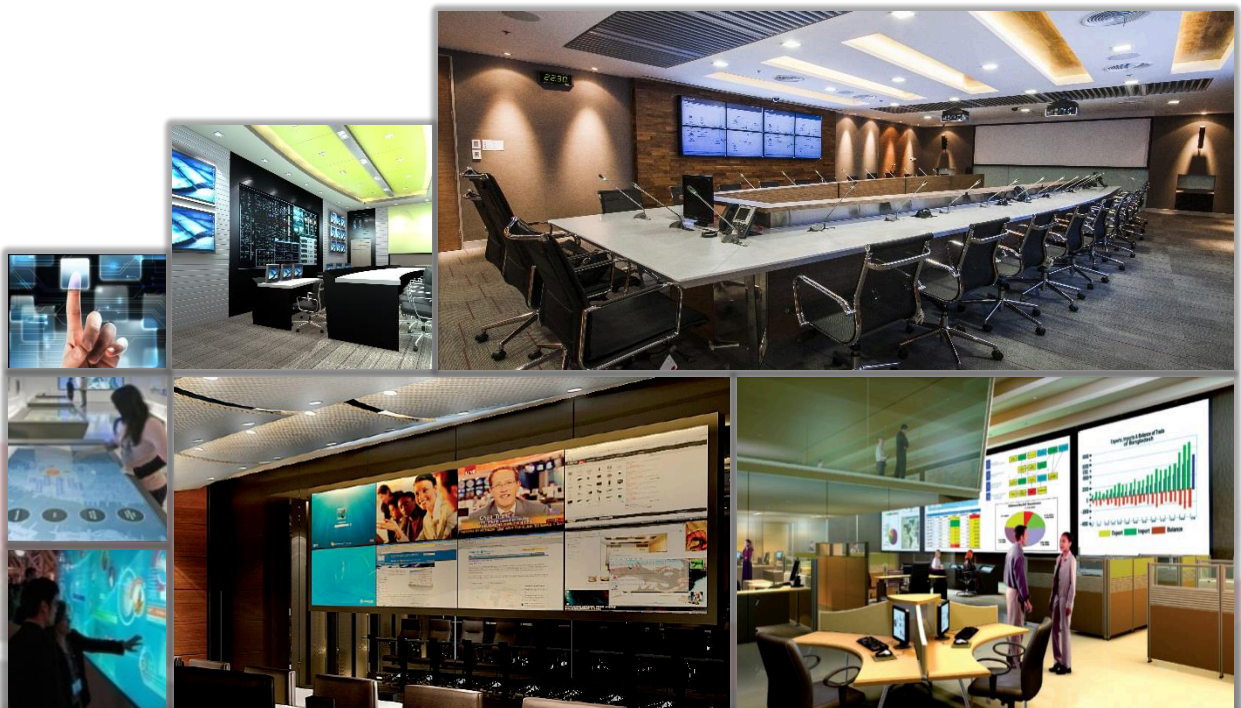


Technological Competency

All AVL Designs utilize up-to-date technologies that are future-proof and yield attractive Return on Investment (ROI), while meeting world-class industry standard. Technologies that are present in our works include :

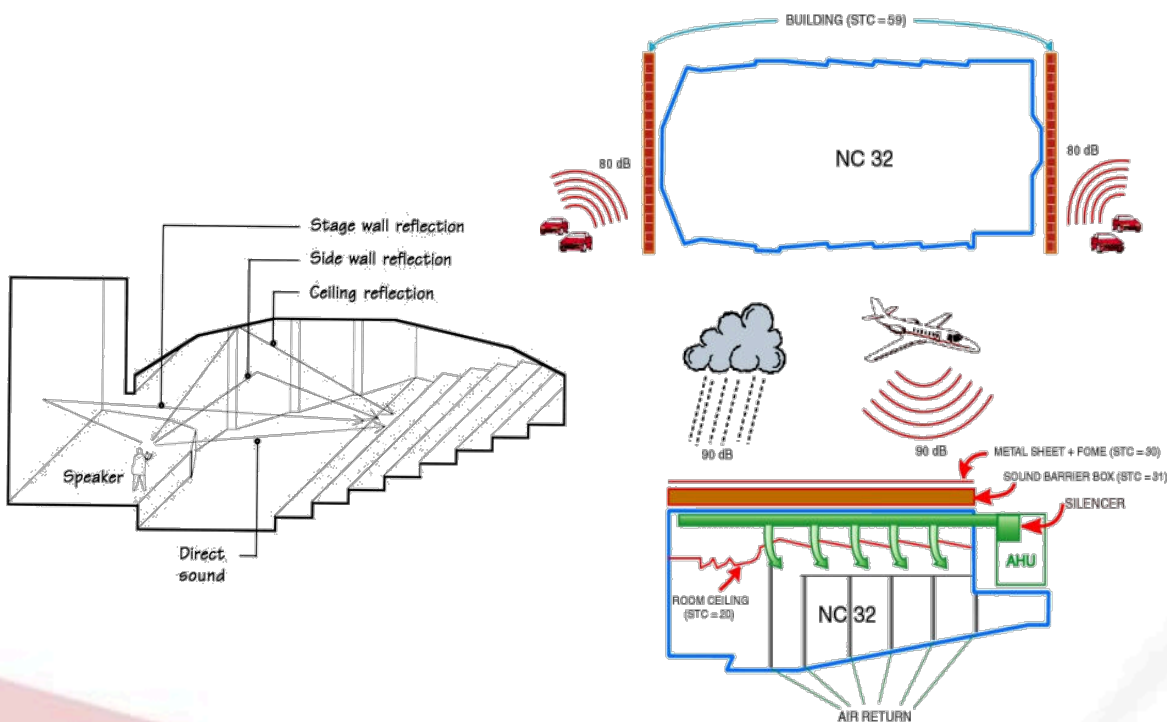
Networked AV Technology – the technology shares IT infrastructure to keep installation cost low and efficient. This methodology also minimizes the need for high maintenance cost. The overall system can be broken-down into these smaller features:

- AV equipment is deployed onto an IP (Internet-Protocol) -based network infrastructure
- Centralized AV equipment management and easy control via handheld devices such as tablets, smart-phones, and notebook computers
- Status-feedback from remote AV equipment and Time-to-Repair Alert Notification
- AV equipment on/off scheduling according to reservation time slot
- Interoperability with personal devices of attendees, guests, speakers, or meeting chairman in a BYOD (Bring-Your-Own-Device) fashion
- Meeting, conference, training, or seminar recording and archiving on a main server which can save and later distribute across social media platforms while enabling an easy-search capability (Archive Content Management System)
- Ability to broadcast the event via online network which enables remote-viewing from a distance location as required
- Feeding content into guests' variety of personal devices in a BYOD fashion
- High-resolution and High-Definition AV equipment



Architectural acoustics design – our acoustics design team makes sure that sound rays interact and add up constructively and contribute to a good-sounding facility:

- RT60 or the reverberation time 60dB is usually controlled to vary around 1 second for most spaces and applications.
- Early-reflection sound is designed so that most of the audience hear the early-reflected sound more than what follows as a late sound energy which may affect speech intelligibility.
- Clarity 30 (for speech), and clarity 50 (for music) or the ratio between the direct sound before and after 30ms and 50ms respectively are carefully assessed.
- Direct-to-Reverberant Ratio is also considered as it has a big effect on speech intelligibility.
- External and internal noise and vibration are usually forecasted and anticipated on the Noise Criteria (NC) of the space.
- Sound transferred into adjacent room or space is blocked through Sound- Transmission-Class (STC) wall.
- Structure and air-borne vibration are also stabilized using to prevent them from intruding other surface and all the way to its enclosed space.

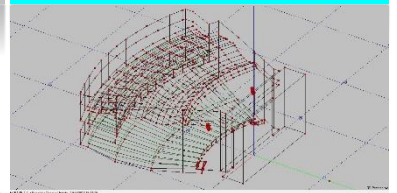
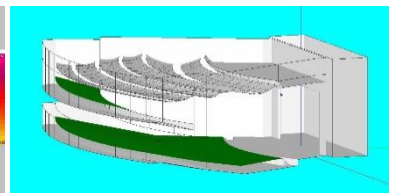
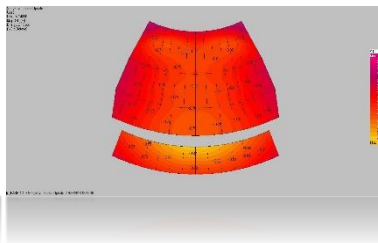
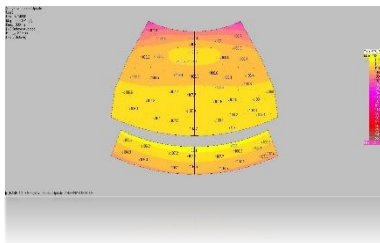


Design Tools

Specialized tools and apparatus that help us predict and verify the design result

EASE 4.2: Sound and Acoustics Simulation Software – world-standard and widely used across the global industry

- Predict the sound behavior and quality within a given room before actual installation. Values such as Reverberation Time 60-dB (RT60), sound level coverage (in dB-SPL), Speech Intelligibility, Speech Transmission Index (STI) are given after the rendering of a simulation
- Sound convolution, to actually hear the sound characteristics within a given room before the actual construction
- To foresee and forecast any anomalies that may happen in a room and sound system design



NTi XL2 - Sound Analyzer:

- Sound Level Meter (dB-SPL)
- Reverberation Time (RT60)
- Noise Curve (NC)



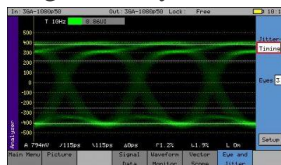
NTi AL1 - Acoustics Analyzer:

- Sound Level Meter (dB-SPL)
- Reverberation Time (RT60)
- Speech Intelligibility (STIPA)



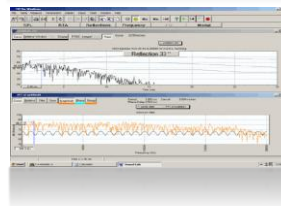
Phabrix SXE - Broadcast Audio and Video Signal Analyzer SD-SDI, HD-SDI, 3G-SDI, Etc.:

- Video generator
- Analyzer
- Monitor



TEF25: Room Acoustics Analyzer

- Signal to Noise
- THD Distortion
- Sound Level Meter
- Reverberation Time (RT 60)
- Speech Intelligibility (STIPA)



Standardized Design

AVL Design focuses on the standard and safety. We strictly follow the following international and local industry codes in our design work:

Local Standards:



Metropolitan Electricity Authority Standard



The Engineering Institute of Thailand, Under H.M. the King's Patronage



Department of Public Works and Town & Country Planning



Thai Industrial Standards

International Standards:



The National Electric Code (NEC)



International Electro-technical Commission (IEC)



The Audio Engineering Society standard mission (AES)



The ANSI standards



Institute of Electrical and Electronics Engineers (IEEE)



International Telecommunication Union (ITU)



International Standardization and Organization (ISO)



United States Institute for Theatre Technology (USITT)

Commitment to *Standards*

Committing to industry and specialization integrity, AVL Design Co., Ltd. is proud to have been a member of these following bodies created to uplift the industry standards:



Consultant Information Center established in accordance with the regulations of the Prime Minister's Office on Procurement B.E. 2535 under supervision Supervising the Public Debt Management Office, Ministry for Finance To be a center for collecting information, consultants and Consulting services to the public and private sectors



AVIXA™ is the Audiovisual and Integrated Experience Association, producer of InfoComm trade shows around the world, co-owner of Integrated Systems Europe, and the international trade association representing the audiovisual industry. Established in 1939, AVIXA has more than 5,400 members, including manufacturers, systems integrators, dealers and distributors, consultants, programmers, rental and staging companies, technology managers, IT professionals, content producers, and multimedia professionals from more than 80 countries. AVIXA members create integrated AV experiences that deliver outcomes. AVIXA is a hub for professional collaboration, information, and community, and the leading resource for AV standards, certification, training, market intelligence and thought leadership.



The Audio Engineering Society is the only professional society devoted exclusively to audio technology. Founded in the United States in 1948, the AES has grown to become an international organization that unites audio engineers, creative artists, scientists and students worldwide by promoting advances in audio and disseminating new knowledge and research.



The purpose of the society is to generate, disseminate, and promote the knowledge and practical applications of acoustics.

Markets

Our specialization in AV design extends across these following functions: conference room, seminar room, training room, Network Operation Center (NOC), command control room, TV-radio production, TV-Radio broadcasting, Etc. Our markets span across three sectors, including:

Governmental sector, such as:

- Mahidol University International College
- Thailand's new Parliament
- King Prajadhipok's Institute
- Office of the Permanent Secretary of Defense
- Thaksin University
- Rajaphat University
- Chitladda College
- National Science & Technology
- Etc

State Enterprise, such as:

- Metropolitan Electricity Authority

Public Company, such as:

- CAT Telecom Public Company
- PTT Public Company
- AOT Public Company
- Sino-Thai Engineering and Construction Public Company
- JRW Public Company
- Etc.

Nonprofit organization, such as:

- United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)
- Thailand Institute of Justice





AVL Design Co.,Ltd.

บริษัท เอวีแอล ดีไซน์ จำกัด

