**Basic requirements for simultaneous interpretation systems**

Date：2018-09-26 11:13:08

1. The International Conference Translators Association (AIIC) and the European Commission's Joint Labor Translation Conference (JSIC) are based on the provision of the best solution for the simultaneous interpretation room, the construction, sound and electricity of the simultaneous interpretation control room. Sound and safety standards are clearly defined. Designing a simultaneous interpretation room is determined by the following factors:

1 Separation of sounds in different languages that need to be transmitted simultaneously.

2 The translator communicates well with the participants in visual and two-way language.

3 Provide a suitable working environment for translators: Simultaneous interpretation rooms are their studios, so that they can maintain a high concentration of mentality throughout their work.

4 For the mobile simultaneous interpretation room, strive to be easy to use and install: light weight but at the same time strong quality.

2, the scope of use

The basic requirements of the audio interpretation room are to meet the functions of transportation (mobile), installation and operation of the simultaneous interpretation room. The main feature of the portable co-transmission rooms is that they are distinguished from fixed installations and can be disassembled, moved and installed in any conference hall. Some interpreting rooms are mobile, but they are pre-customized and placed in close proximity to the conference room. Such interpreting rooms are not included in the international standard ISO 4043-1998. Their design standards should be Try to refer to the ISO2603 standard for fixed installations in the same room.

3. Standard Reference

The following specifications contain all the terms that make up the international standard, and the version specified at the time of publication is valid. All standards can be modified. All parties based on this international standard should use the latest version referred to below as much as possible, and members of the IEC and ISO should apply for valid and up-to-date international standards:

1SO140-4:1998, Building Acoustic Noise Isolation Measures and Building Environment Article 4: Air Flow and Sound Insulation Field Measurements Between Rooms.

2ISO2603: 1998, the general characteristics and equipment of the simultaneous interpretation room.

3ISO4043:1998, general characteristics and equipment of the mobile simultaneous interpretation room.

4ISO3382: 1997, Reverberation time measurement parameters for architectural acoustics.

5IEC60914:1998, requirements for active audio products for conference systems.

4. Definition

The following definitions apply to the purpose of this international standard:

Audio Technology Super Forum Simultaneous Interpretation Room: A self-contained unit with a translator's workspace in a conference room, designed to provide sound insulation between translators and other processes in the room and between two or more different languages. Measures.

Note: Mobile interpreting rooms are self-contained and can be assembled from modular components.

5. General requirements

5.1. General

The Simultaneous Interpretation Room is designed to provide voice information for different occasions and should have excellent sound insulation and sound absorption. The materials used should be odorless, anti-static, flame resistant, or fire resistant and will not harm the eyes, skin and respiratory system. They cannot absorb or store dust. (Cannot use carpet) should choose the color suitable for a tight working environment. All objects, including the surface of the equipment, should be coated with a matt finish. (It’s unacceptable to just add a top cover to the table.)

When choosing a conference hall to install a simultaneous interpretation room and its equipment, an essential factor is to ensure that there is plenty of room for proper placement. Users should also ask translators and equipment suppliers or engineers for questions.

5.2. Suitability of the conference hall

1 The conference hall should have sufficient space to accommodate the participants, the interpretation room and electrical equipment, and should be kept away from noise sources (eg outside traffic, noisy walks in the building, elevators and kitchens).

2 The conference hall should ensure a satisfactory acoustic effect, which can make the speech sound clear, and especially to ensure a shorter reverberation time.

3 The conference hall should have proper heating and ventilation (air conditioning) with a carbon dioxide concentration of no more than 0.1%.

5.3. Meeting room selection

The conference hall should have enough space to place the room. The pulpit, the participants, the blackboard, and the projection screen should all be within the line of sight of the translator (see ISO 2603). In order to ensure that the translator has sufficient visibility, the interpretation room should be at least 30 cm higher than the floor. If desired, use a solid, carpeted, properly absorbing platform that is safe and does not emit noisy sounds.

There must be no objects that block the line of sight, such as columns, beams, etc. There should be at least 2 meters of space between the conference table, the delegates and the interpretation room to prevent the participants from being disturbed by the sounds emitted by the simultaneous room.

Access to the corridor through the same room should be avoided, and if possible, a dedicated passage can be opened for the simultaneous interpretation room.

5.4. Simultaneous room size

Each studio should accommodate the required number of translators to sit comfortably while allowing them to freely enter and exit the room without interfering with each other, while ensuring adequate ventilation and temperature control. The size of the simultaneous interpretation room is usually based on the health and professional requirements of the translator. The internal dimensions of a standard interpretation room should not be less than the following values:

1 Width: Audio Technology Super Forum

- Two translators below: 1.60m

- Two or three translators: 2.40m

Three or four translators: 3.20m

2 depth: 1.60m

3 height: 2.00m

Meaning: In very special cases, if the space limit cannot apply the standard size, then the size of the same room used by two translators is: 1.50 × 1.50 × 1.90m

5.5. Door

The choice of the door is important to ensure good sound insulation: the door of the same room should be a hinged door that opens outwards. It can be directly connected to the platform or the room. The door should be noisy when switching, and cannot Locked.

Note: Sliding doors and curtains are not acceptable.

5.6. Cable channel

If you need to lay cables on the front or side of the same room, use the smallest cable that is compatible with the device and the channel should be unobstructed.

6. Window

6.1. General)

Each co-located room should have front and side windows. To ensure maximum visibility, the front window should be as large as the entire front wall. The vertical support should be as narrow as possible and not in the middle of the worker's field of view. The window glass is transparent, clean, and prevents scratches that may obstruct the line of sight.

6.2. Size

The front and side windows should extend at least 0.8m from the top of the table to 0.1m. The side windows should be spread along the side wall. The distance from the front window is 0.6m, which should be 0.1m above the workbench.

7. Acoustic requirements

7.1. Sound insulation

The interpreter room should block any sound other than the interpreter, such as a speech from the interpreter or conference hall (and vice versa), background noise, etc. If all the simultaneous interpretation rooms share a wall, then the full soundproofing standard should be achieved.

Sound insulation should be tested in accordance with ISO 140-4 as a test for different sound pressure levels: use one of the simultaneous rooms as the receiving room, and the room filled with white noise or pink noise as the sound source (can be the conference hall or Adjacent co-located room).

The sound pressure level shall be tested in the sound source room and the receiving room at a frequency doubling bandwidth. For noise propagating from the conference hall to the same room, the difference between the two sound pressure levels shall be at least equal to that given in Table 1. Value and vice versa:

Table 1: Differences in sound pressure level from the simultaneous interpretation room to the conference hall (or vice versa)

Test frequency: Hz250500100020004000

Sound pressure level difference: dB1215182020 When measuring the sound pressure level difference from the outside to the same room, it is necessary to install the same room in the appropriate conference hall, which can simulate the actual situation.

7.2. Sound absorption

The use of anti-static sound absorbing materials in the simultaneous transmission room will reduce the echo and reverberation. The reverberation time (refer to ISO3382) in the interpreter room is 0.3s to 0.5s, and the multiplication bandwidth is 125Hz to 4000Hz. A screen made of sound absorbing material can be used between the back of the room and the wall to weaken the reflection of the wall. In the conference room without carpet, the room should be placed on the carpet.

7.3. Ventilation

The ZA Sound Technology Super Forum Room should be equipped with a good ventilation system to ensure at least seven air updates per hour without creating a flow that is harmful to the translator. If there is a higher frequency airflow update, the switch should be set in the simultaneous transmission room for adjustment.

The roof fan should be strong enough to meet the above requirements, while at the same time keeping the noise as low as possible. If the vent is directly opposite the meeting room, it should be on the lower wall of the interpretation room (use of cold air, It can guarantee a good cycle) and should be directed towards the back of the interpretation room to avoid airflow to the translator's lap.

The weighted sound pressure level in the simultaneous transmission room with ventilation system should not exceed 40 dB, and the mechanical vibration of the ventilation system should be minimized.

8. Countertop

The work surface should be the same width as the simultaneous interpretation room. It is placed horizontally and covered with shock absorbing material to prevent noise from being picked up and amplified by the microphone. The work surface should be strong enough to support the weight, documentation, and translators of the interpreter console. The bottom surface is smooth and suitable for the following dimensions:

1 high: 0.73m +/- 0.01m from the floor up

2 total depth: maximum 0.50m

3 leg placement space: a minimum of 0.45m, the support should not be placed in the space or obstruct the interpreter free movement, fixed equipment, such as lighting, should be placed as far as possible without disturbing the work space.

9. Lighting

Each of the simultaneous interpretation rooms should have at least two compact, low-heat directional lights. The device is on an adjustable stand and does not obstruct the work surface. The lighting provided by the luminaire should cover the entire working surface, and the brightness can be adjusted in two ways: one is low-end 100Lx or 200Lx, the other is higher than 300Lx, or can provide continuous from 100Lx to 300Lx The brightness is adjusted and the brightness value is tested from the level of the work surface.

10. Interpreter seat

Every translator or engineer wants to have a comfortable chair with the following characteristics.

1 stable support

2 adjustable height

3 adjustable backrest

C Audio Technology Super Forum

4 ergonomically designed armrests

5 casters do not produce audible noise

6 materials with good heat dissipation

7 should have an independent, movable footrest.

11.Interpretation room audio equipment

11.1. General

A description of the simultaneous transmission equipment is given in IEC60914.

11.2. Console and headphones

Each translator needs a console and headset. If there are only two translators below, a dual console is allowed, but each translator is advised to use a separate console. In order to meet the different needs of the translator, the console should be equipped with a fixed-mounted microphone and headphones.

11.3. Interpreter microphone

The interpreter microphone can be mounted on a removable base or used in conjunction with a headset, but the headset is not suitable for all translators, and each translator requires a microphone.

12. Compatible with broadcast systems

The reverberation and acoustic feedback of the conference hall may affect the simultaneous interpretation effect, and even hinder the memory or damage the hearing. In addition, since the listener receives information through headphones, under normal circumstances, it may be overwhelmed by the sound of the speaker. In fact, incompatible broadcast systems can cause interference. Therefore, when designing the broadcast system and its volume control, precautions should be taken to avoid echo and acoustic feedback between the speaker and microphone in the conference hall.

When it is inevitable to use the public speaking system (for example, most listeners listen in a native language), the broadcasting system should be used to a minimum and should minimize the feedback between the speakers and microphones in the conference hall.

In order to achieve the most effective control under the above circumstances, the simultaneous interpretation system (multi-channel) and public broadcasting system (single channel) should follow the following principles:

1 source comes from a single microphone system

2 has a separate volume control that allows each system to make independent adjustments: when the public address system is lowered, the signal strength required by the translator is not reduced.

3 The control between the two systems should be close to each other so that they can be monitored by an operator in the same room.

References: ISO4043: 1998 "General Features and Equipment of Mobile Simultaneous Interpretation Room"