CHOOSING THE CORRECT

INTERPRETATION EQUIPMENT

WILLIAMS SOUND
**Terminology**

**Translation** usually means converting from one language to another, be it in oral or written form.

**Interpretation** is specific to the oral translation of the spoken word from one language to another as it happens. Interpreting is a very complex task. The accurate communication is the most important aspect of any meeting, and quality interpretation will ensure its success. The audio needs to be heard and understood by the listening audience.

**Simultaneous Interpretation.** Facilitating the communication of speech from one language to another in real time, allowing presentations or conversations to flow naturally, in multiple languages, without delay. The interpreted speech is usually heard by using a wireless audio receiver.

**Consecutive Interpretation.** This is where communication flows in a lineal approach, where one speaks and then pauses, so the interpreter can speak. The advantage to this is no special equipment is required. The disadvantage is it takes much longer and can disrupt the natural flow of the meeting.

**Whisper Interpretation.** In whisper interpreting, the interpreter sits or stands next to a small group of target-language audience while whispering a simultaneous interpretation of the matter at hand. This method requires no equipment, but may be done via a microphone and head-phones if the participants prefer. This is common in circumstances where the majority of a group speaks the source language, and a minority does not speak it.

**Floor Language.** This is the language that the main speaker or presenter uses when talking. The language(s) that the Floor Language is being translated into is called the “target language” or “translation feed”. The Floor Language can change throughout the event, and there can be more than one target language, depending on the complexity of the event.

**Relay.** Relay interpreting is used when there are several target languages. A source-language interpreter interprets to a language common to every interpreter, each of who then renders the message to their respective target languages. This solution is most often used in multilingual meetings with three or more languages.
Interpretation Booths. Interpretation booths are used to provide sound isolation for the interpreters. The isolation serves two purposes. The booths allow the interpreters to work in a quiet environment, free from audible distractions, so they can focus on the words of the speaker(s). Inside the booths, the interpreters can speak at a normal volume in whatever language they speak, and not disturb the meeting attendees in the audience. The interpreters usually receive the audio feed from the floor by means of an XLR cable.

Interpreter Console. The console is the control center for interpreters, allowing them to receive, transmit and control the audio (both incoming and outgoing). It is common that two interpreters, speaking the same language, will share an interpretation booth and interpreter console, with individual microphones assigned to each interpreter. This is done because it is a complex task, requiring frequent breaks to allow each interpreter to relieve the other. A typical scenario for an interpreter would be 20 minutes on and 20 minutes off. The interpreter console features are important, because the console allows the interpreters to perform more efficiently.

Language Distribution. This is the distribution of the audio of the interpreted languages to the meeting attendees. Usually, and most desirably, this is done wirelessly. In the world of interpretation, there are two technologies commonly used to wirelessly transmit the audio -- radio frequency (RF) or infrared (IR).

Transmitter. This is the equipment that will be hooked up to the interpreter console to transmit, or wirelessly distribute, the audio. Sometimes it is used on a stand-alone basis in small and less-complex events. This can include base-station transmitters or mobile, body-pack transmitters. If infrared technology is used, the combination of an infrared modulator and emitter serves the transmission purpose.

Receiver. This is the equipment that the listening audience uses to wirelessly receive the audio distribution that is being transmitted. Some receivers have a built-in speaker, while others require the connection of a headphone or earphone to hear the audio. Most receivers offer the option to select the channel along with adjusting the volume of the audio.
Questions to ask when selecting interpretation equipment

Size?
Determine the number of attendees at the event, and the size of the room/meeting space. This is important in determining the number of receivers required and the type of technology required for suitable coverage of the space.

Location?
Determine whether the event is inside or outside. Other important factors are whether it is in a highly populated urban setting or in a rural area. Typically, the larger the population center, the more likely it will be to experience interference from other FM transmissions. Previous experience using equipment in a certain area is helpful. If possible, use a receiver as a "scanner" to survey the site for interference before the event.

Portability?
Will the equipment be moved from location to location and, if so, how often? Or is the equipment going to be installed in one room and remain there for events? Is the interpretation taking place on a walking tour? These questions will not only help determine the required technology, but also whether the equipment can use standard power supplies or will require a portable transmitter(s).

Security?
Is secure transmission an issue? In some meetings, such as those held by a government agency, legal agency or financial institution, secure transmission is required so the conversation cannot be picked up by unwanted external listeners. When selecting interpretation technology, remember that infrared and encrypted digital systems offer secure transmission; FM systems do not.

Number of languages?
Determine the number of channels required to be transmitted simultaneously during the event. As the number of languages or channels increase, the complexity of the technology increases (as does the cost).
Multiple meetings adjacent to each other?
Are multiple meetings taking place simultaneously in close proximity to each other? If so, transmitters used in one room can easily be within the range of other transmitters. Careful consideration should be given regarding the number of channels required. Infrared technology generally avoids this issue, as the signal is contained within the walls of each room.

Preference?
Sometimes there are mindsets or comfort levels already set, based on the type of equipment that has been used in the past. This can be an important consideration, when someone is already accustomed to something, and there is no other determining factor for change.

Typical Language Interpretation Event
Additional Language Interpretation

Digi-Wave For Language Interpretation

Integrate Digi-Wave with IC-2 Interpretation Control Console for up to 14 simultaneous language applications. Diagram reflects Digi-Wave being used in three language application (two languages plus floor).
Infrared Technology

Infrared works just like white light that you see, except it has a longer wavelength and is not visible to the human eye. The audio signal is transmitted by an infrared beam throughout the room and is received by a receiver designed to receive the signal and process it back to audio for the listener.

Advantages
- More consistent reception
- Excellent sound quality
- Usually not susceptible to interference from external sources
- Transmission is confined within a room where security is a concern
- Easily accommodates multiple and adjacent room installations without spillover or cross-interference
- Can be used in any country. Not regulated like RF
- Infrared light is reflected by light-colored floors, ceilings and walls to increase coverage
- Receiver automatically picks up the correct channel in adjacent room applications
- Multiple channels can be used for multiple languages

Disadvantages
- Difficult and expensive to cover large venues (i.e., arenas and stadiums)
- Emitters must typically be installed at a level above the audience and cannot be covered by curtains or drapes
- Maintaining architectural integrity of a site may discount the viability of this technology
- Emitters need to be placed properly for optimum coverage
- More emitters are needed for larger areas, which adds to the cost of the system
- Infrared systems do not work well in direct sunlight
- Opaque objects like columns and a person’s body can block the signal
- Infrared light can be absorbed by dark materials, thus reducing coverage

Best Applications
- Courtrooms, especially those with adjacent chambers and where secure transmission is needed
- Boardrooms where secure transmission is needed
- Schools and Universities
- Auditoriums
- City centers that have heavy radio (RF) interference
FM Technology

FM interpretation systems use radio waves as the audio distribution method. One can use either a portable battery-operated transmitter with reduced range, or an AC powered base-station transmitter that can greatly increase the broadcast range. The listening audience uses a FM receiver equipped with headphones to hear the interpreters of their choice. It is like a custom radio station.

The portable, battery-operated systems are light and easy to pack into a suitcase for transport from site to site. They also offer a solution for interpretation on the go for walking tours, in a museum or in a company’s manufacturing facility.

Large-area FM systems: If you have a large venue and an event with a sizeable listening audience, then you will need a more powerful base-station transmitter. These systems can broadcast up to a 1000-foot radius from the location of the antenna. The antenna can be connected directly to the transmitter or remotely placed for strategic coverage. These systems are portable for delivery to a location. However, once installed, they must remain stationary and are not mobile. They require a little more time for set-up and break down of equipment at events.

Advantages
· Can easily cover very large seating areas
· Simple installation
· Lowest installation cost
· Transmitter can be concealed (but not in metal enclosure) when architectural integrity is an issue.
· Cost does not increase as seating-area size increases
· Receivers are not directional or line of sight
· Excellent sound quality
· Works outdoors in direct sunlight
· Highly portable
· Multiple channels can be used

Disadvantages
· Signal can carry beyond the intended area
· Transmission is not secure for privacy
· Radio interference from other services is possible
· Limited number of channels available
· Adjacent rooms need to be on a different frequency
· Users must select the correct channel

Best Applications
· Stadiums, auditoriums or other large seating areas
· Churches
· Schools and Universities
· Tour Guide or other portable applications
· Outdoor applications
Product Overview
Infrared Products

Our lightweight systems for language interpretation are ideal for mid-range to large-area seating venues that require one to four simultaneous language distributions.

**WIR TX75 mid-range infrared transmitter.** The sleek and stylish WIR TX75 transmitter is designed to maximize coverage area up to 12,000 square feet in single-channel mode when using the WIR RX22-4 receiver. Available in C (2.3/2.8 MHz) and D (3.3/3.8 MHz) models. Two WIR TX75 S slave emitters can be added for additional coverage of up to 12,000 square feet each (36,000 square feet total), when mounted up to 100 feet from the master. A single CAT5 cable carries both power and signal to the slaves.

**WIR TX90 DC two-channel infrared transmitter.** Large-area, two-channel infrared modulator/emitter (2.3/2.8/3.3/3.8 MHz). Black or white housing and lens.

**WIR TX925 two-channel infrared system.** Large-area, two-channel infrared listening system. Ideal for use in large facilities that have hearing assistance, language interpretation or audio description needs. Coverage up to 30,000 square feet (2,787 square meters) in single-channel mode. Available in black or white.

**Infrared Receivers.** Williams Sound offers several receivers, suitable for different applications. We recommend our **WIR RX22-4N** receiver, which offers four channels and is considered the most sensitive receiver on the market.
FM Products

Our PPA systems offer versatile solutions to your language Interpretation needs in those countries where 72-76MHz is accepted as an approved frequency. We offer completely portable solutions for tour-guide applications with a range up to 150 feet. Our stationary systems cover large venues with ease, providing a range up to 1000 feet.

PPA T45 NET FM base-station transmitter with network control. This installed FM T45 transmitter, now with an optional Dante input, broadcasts on one of 17 available channels and offers up to eight simultaneous channels, multiple digital audio input options, and an OLED high-resolution screen with easy-to-manage menu navigation. Available with or without network control. Network control allows for remote monitoring and adjustments without the need to be physically onsite. Features three powerful microprocessors and the same high-quality audio and RF performance you've come to expect from Williams Sound. Simply select among voice, music, or hearing assistance in the application preset menu, and this transmitter quickly configures itself. Range of up to 1,000 feet.

PPA T46 FM body-pack transmitter. Portable, FM transmitter will broadcast a speaker’s voice or audio program on one of 17 available channels, 72-76 MHz, to listeners using Williams Sound R37, R37-8 or R38 receivers. The unit features flexible microphone and auxiliary input jacks, push-button on/off/mute controls, channel lock and selectable compression. The T46 has the ability to operate in dual-channel mode, allowing the user to easily switch between two different transmitting channels, each with its own set up parameters. An OLED screen displays current operating status and menu information. Operates up to 30 hours on two AA alkaline or (optional) rechargeable batteries. Range of up to 150 feet (46m).

FM R37 receiver. Seek-button channel selection with access to 17 pre-set, wideband frequencies (72-76 MHz). Offers sleep mode, and stereo headphone jack. Compatible with all Williams Sound 72-76 MHz wide-band transmitters. Digitally synthesized for exceptional audio clarity and stability. Versatile 3.5mm stereo/mono jack allows for a variety of earphone / headphone options, and is neckloop/telecoil-equipped hearing aid compatible.

FM R38 receiver. Multi-channel receiver with high-resolution OLED screen. Quick view of receiver status and immediate entry to all user settings. On-screen channel selection with access to 17 pre-set, wide band frequencies (72-76 MHz). Compatible with all Williams Sound 72-76 MHz wide-band transmitters. Digitally synthesized for exceptional audio clarity and stability. Digital tuning, digital squelch and battery-saving sleep mode. New stereo jack paired with the mono jack adds compatibility with variety of earphones/headphones. Rechargeable ready.

PPA R37-8N FM receiver. Rotary selection knob for easy access to eight pre-set wide-band frequencies (72-76 MHz). Battery-saving sleep mode. Compatible with all Williams Sound 72-76 MHz wide-band transmitters. Digitally synthesized for exceptional audio clarity and stability. Versatile 3.5mm stereo/mono jack allows for a variety of earphone / headphone options, and is neckloop / telecoil-equipped hearing aid compatible.
Digital Products

This digital communication system is ideal for situations where security, portability and flexibility are critical. Each system can be customized to meet individual needs. Depending upon set-up, Digi-Wave transceivers can be used to provide conference interpreting of up to 14 languages plus floor, corporate interpretation of negotiations or teleconferences, and/or interpretation of interactive factory or museum tours.

**DLT 300 transceiver.** Digi-Wave transceiver transmits and receives. Features full-duplex capability. Supports up to six simultaneous talkers in two-way mode. Slim, lightweight, and simple to set up and use. One- or two-way operation offers flexibility in an array of applications. With the push of a button, users can access two-way communication for immediate interaction or Q&A.

**DLR 360 receiver.** Features a larger LCD display for displaying status of channel, volume, battery and reception. This receiver will accept alkaline or NiMH rechargeable batteries and can be charged in the same charging station as a DLT 300 (when rechargeable batteries are used).

**Digi-Wave Dock.** Provides a simple, flexible way to connect portable Digi-Wave systems to other fixed systems. The connection begins when a Digi-Wave transceiver or receiver is simply plugged into the Dock. The Digi-Wave Dock provides continuous power and/or charging for two Digi-Wave devices and has separate audio inputs and outputs in each of its bays.
For more information about Williams Sound’s full line of products and accessories, contact our sales department at

+1.952.943.2252 / intsalesdept@williamssound.com / www.williamssound.com