THE VIDEO GAME AUDIO PROCESS

The audio production process isn't a one-size-fits-all procedure. Every project is unique, differing based on factors like localization, scope, pacing of the development cycle, and even individual preferences. Recording localized audio won't be the same as recording original-version audio. Likewise, recording for a 10-hour game can be wildly different than recording for an 80-hour game.

However, most projects follow a general pattern, which consists of a few key steps.

0 PROTOTYPING

During a game's production, developers often work with a prototype, which might have little, if any, original sound. From there, they work on a vertical slice, which includes some voice, rough or borrowed SFX, and music. This phase is unique to original-version audio projects.

1 FAMILIARIZATION /KICK-OFF

Once a script has been drafted, the developer contacts an audio production company, or studio. The studio works with the developer to understand their needs and expectations, gain IP knowledge, and determine recording windows according to delivery requirements.

For original-version audio projects, initial work on music and in-game sound effect design begins at this stage. Depending on a developer's needs and capabilities, they might handle most of this in-house, bring on individual freelancers, or hire a production company to do the majority of the work.

2 CASTING, CONTRACTS, SCHEDULES

Local Casting Directors use customer input, scripts, and character bios to put together casting samples. They may supply demos for suggested actors, have actors record project-specific demos, or hold in-studio auditions. The developer reviews these materials and chooses the actors best suited for the role. After which selected actors are contacted, contractual terms are confirmed, and recording schedules are finalized.

3 SOURCE ASSET PREP

The developer submits source assets, including reference material for original-version audio projects, and scripts, source audio, recording constraints, and any additional reference material for localized audio. The studio validates that everything is in good order. If any issues arise, the studio reports said issues to the developer or resolves them in line with the developer's expectations. Common asset issues include missing reference files and script errors. For dubbing projects, these can also include mismatches between the script and the source language voice files, language-specific gender variants, etc.

4 SCRIPT TRANSLATION, REVIEW, & ADAPTATION

Unique to localized audio projects, scripts and metadata are translated and reviewed as applicable. In addition to script translation, a linguist creates pronunciation glossaries for unique terms, including original language phrases, names, and other proper nouns. These glossaries and other notes are later used by the Studio Voice Director during recording.

Once source audio is available, translated scripts undergo an additional check. A lead dialogue reviewer listens to the source audio to get a sense of its pacing and intensity. They then make necessary adjustments to ensure the script will produce engaging dialogue and that each line meets duration and sync constraints.

5 STUDIO RECORDING

This is when the recording takes place! The voice director guides the actor's performance to ensure that recorded dialogue fulfills the creative vision. As the actor reads each line or section of dialogue, the director will suggest ideas, provide examples, and ask for changes to produce the best possible performance. Meanwhile, the recording engineer records and aggregates the audio.

The director may choose to record alternative takes if there are any doubts about the performance, or where more variation is preferred to be refined later in the process. Sometimes, the recording team may change the script during the recording process if it feels unnatural or if a spur-of-the-moment idea improves the feeling of the dialogue.

> A local recording team is typically composed of a voice actor, voice director, and recording engineer. On complex projects, an additional script engineer or linguist may be added to the team. Representatives of the developer may also choose to be present during recording.

5.5 RETAKES & IMPLEMENTATION

Because original-version audio production begins before a game's completion, recording is rarely — if ever — completed in one session. After the first round of recorded audio has been assessed, a second round takes place, usually with iterations of the first round. This may include content changed or added to the script, or retakes. Around this time, audio engineers usually begin rudimentary work on cinematics, as well as start to implement SFX and in-game music. Multiple rounds may occur throughout the remainder of the process as needed to accommodate content changes and achieve the desired result.

6 AS-RECORDED UPDATES

Any changes to the script made by the recording team are immediately reviewed by the lead dialogue reviewer to ensure the script passes muster and no errors have been introduced.

> **ORIGINAL VS LOCALIZED AUDIO**
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> One of the biggest factors that affects the recording process is whether the audio is original or localized. Naturally, localized audio will undergo checks and balances that are not applicable to original-version audio; moreover, unlike with localized audio, original-version recording is rarely done in one go.
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> With localization, either the whole game or an entire drop of a game is complete in its original language, and the studio typically gets the whole script at once. With original audio, it's more common to start with a prototype version or vertical slice, a good bit of which might be thrown out. Recording starts in earnest later in production, but changes may still be made to the game, which leads to more material being cut or revised.

7 CLEAN & TRIM

Audio files, including alternative takes, are cleaned, trimmed, and automatically named.
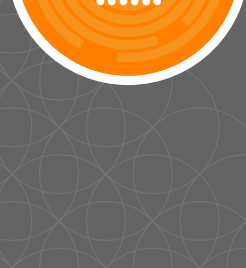
8 LEVELLING & FX PROCESSING

Audio is roughly leveled (volume is balanced), compressed, and EQ'd. Then, an FX chain is applied. FX may include reverb, delay, noise removal, distortion, and other such effects. Exact plugins and presets may be defined by the developer or created from scratch to achieve a specific sound. Files are then re-leveled as specified. Typically, each loc file is adjusted to match the average and peak LUFS of the source and tweaked from there.
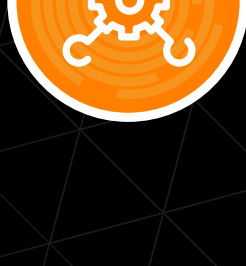
9 MIX, MASTER, AND SYNCING

Audio is edited to match the visual experience. Often the centerpieces of the player experience, cutscenes get special attention with additional syncing, mixing, and editing requirements. Depending on developer needs, the audio engineer may export anything from the raw voice tracks for each speaker to fully mixed multichannel video.

For original-version audio projects, this stage can span the entirety of the Alpha and Beta releases of a game. During the Alpha phase, animation for cinematics is time-locked, meaning engineers can work on them in earnest. By the end of Alpha, implementation of in-game music, and SFX should be complete. Engineers work on the finishing touches for cinematic music and mixing.

10 LOCAL QA

Localized audio must undergo Localization Quality Assurance. Audio LQA teams, which are composed of native speakers, verify every take for actor performance, clean up, duration and sync requirements, script vs audio match, and technical requirements to ensure each line will engage the player.

> While this task can be aided by automation, human expertise is necessary to evoke a positive player reaction.

11 DELIVERY QA

QA teams perform additional pre-delivery checks for duration, technical requirements, naming conventions, and folder structures, as well as triple-check that nothing has been missed. They prepare and deliver to the developer via the requested delivery method.

For original-version audio, a special round of QA covers a subset of this: checking for technical specs, consistent sound quality and level, and that every required file is present and correctly named.

12 QUALITY MONITORING

Quality doesn't end at delivery. Meticulous studios will sample delivered content for intensive quality evaluation, identifying even the most minor issues and intervening before they can affect customer deliveries. An insights dashboard is used to learn review websites to gather feedback and detect underperformance.

LIONBRIDGE GAMES