



# International audio production for videogames

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## Scenario 2010

- AAA games become Hollywood productions
- Sound quality comparable to movies
- International distribution to pay investment
- US titles: international sales > domestic sales



# International audio production

- What is game localization
- Audio for games
- Audio for games localization
- Film dubbing vs Games audio localization
  - Pre-production
  - Recording
  - Post-production
  - Quality assurance
- Conclusions
- Questions



## Game localization is...

Gameplay adaptation to culture +  
Translation +  
Dubbing +  
Software integration +  
Functional & Linguistic Testing =

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Game Localization



# Game voice production scheme

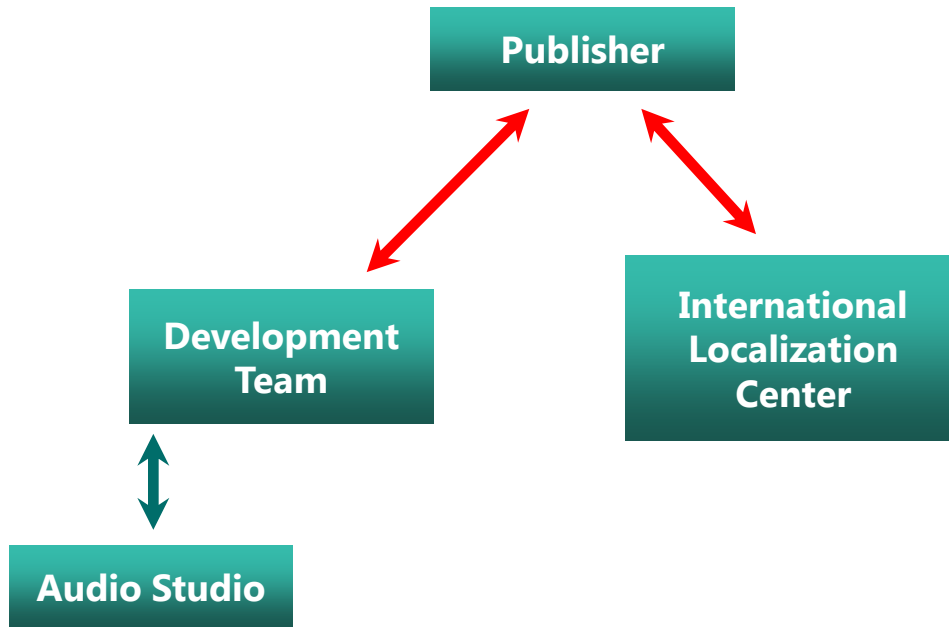
Development  
Team



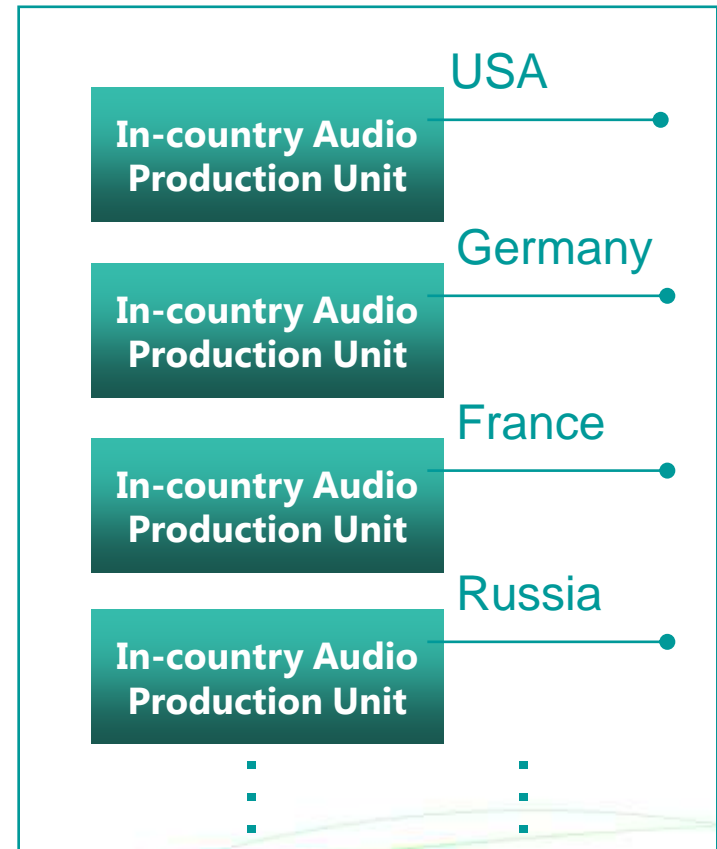
Audio Studio



# Game voice production scheme

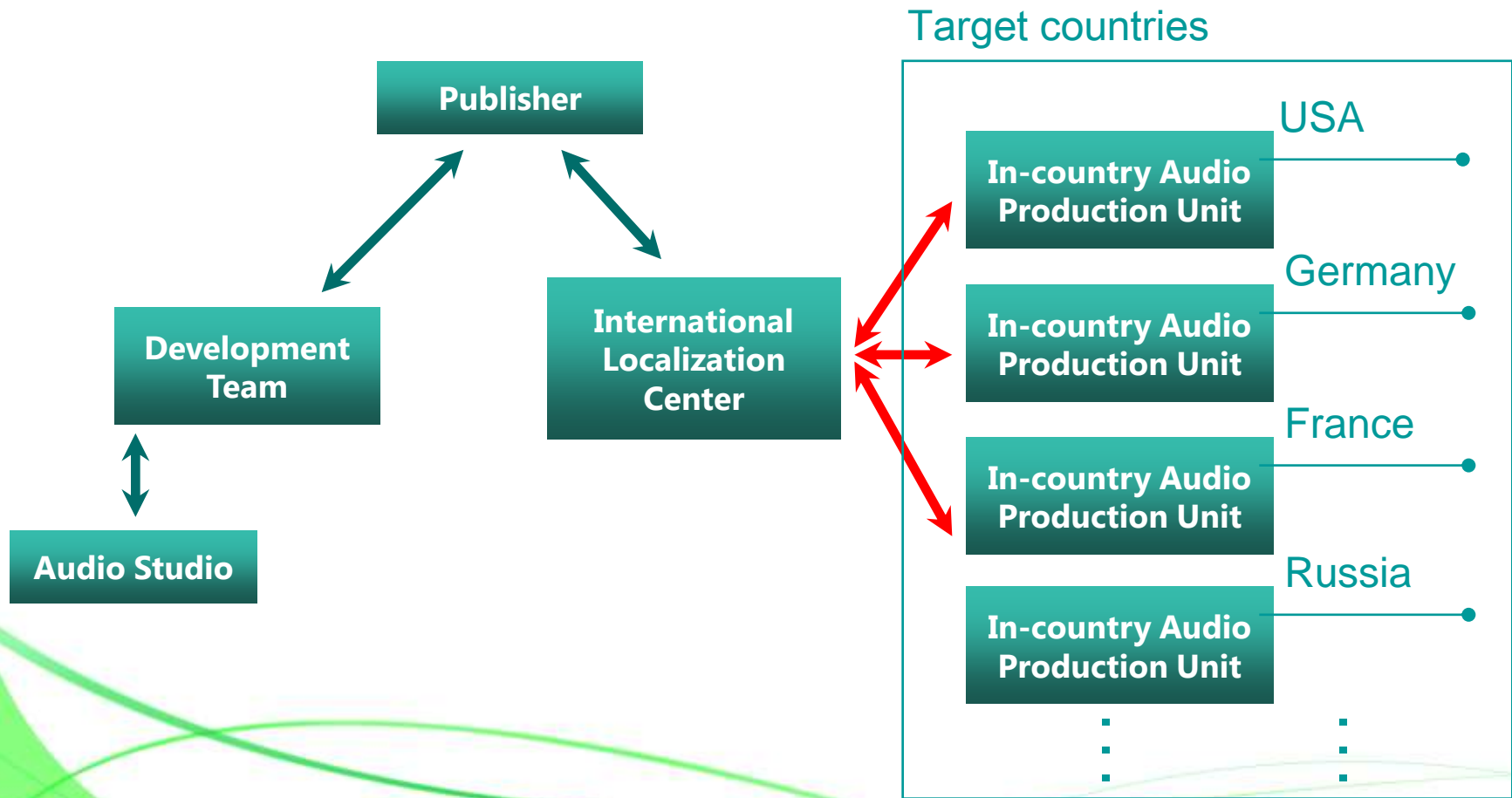


## Target countries



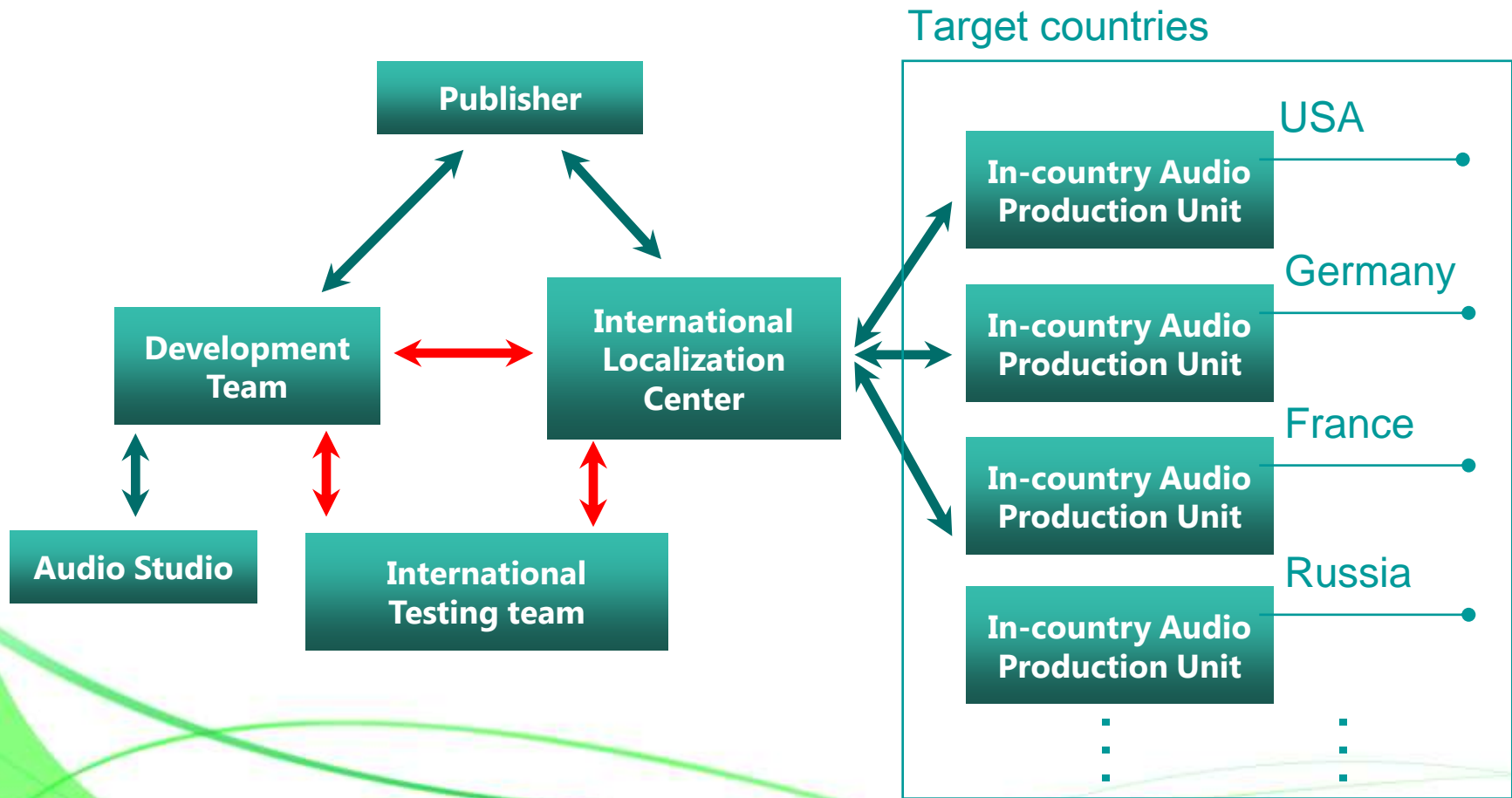


# Game voice production scheme





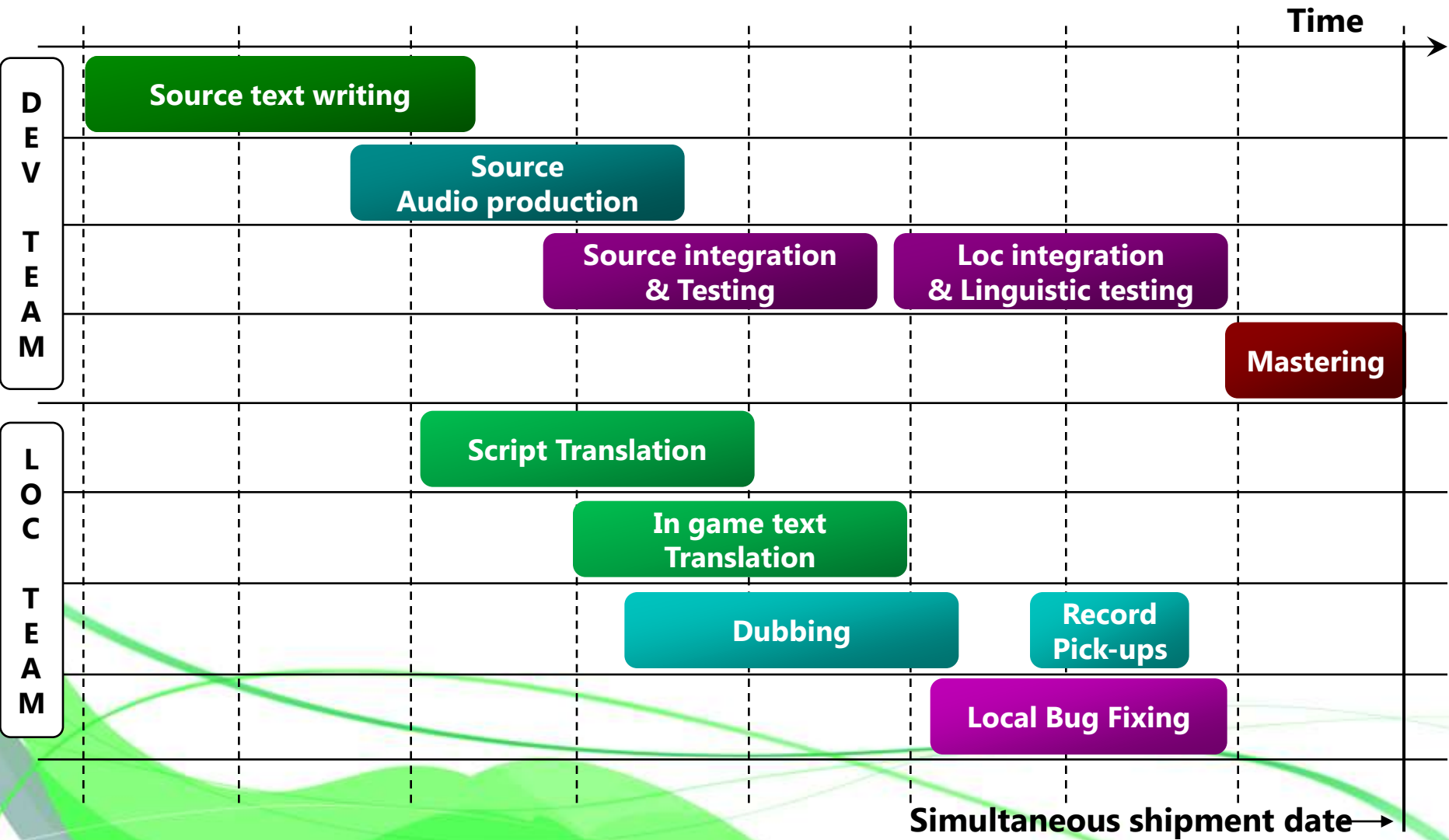
# Game voice production scheme







# Game project schedule for “simship”





# International game audio in figures

|                       | <b>1 Language</b> | <b>Languages</b> | <b>Totals</b>        |
|-----------------------|-------------------|------------------|----------------------|
| <b>Actors</b>         | 5-50              | 4-10             | <b>20-500</b>        |
| <b>Characters</b>     | 20-200            | 4-10             | <b>80-2,000</b>      |
| <b>Voice files</b>    | 1,000-10,000      | 4-10             | <b>4,000-100,000</b> |
| <b>Hours of audio</b> | 1.5-15            | 4-10             | <b>6-150</b>         |

**Typical timescale: 1-6 months**



# Film audio

Viewer



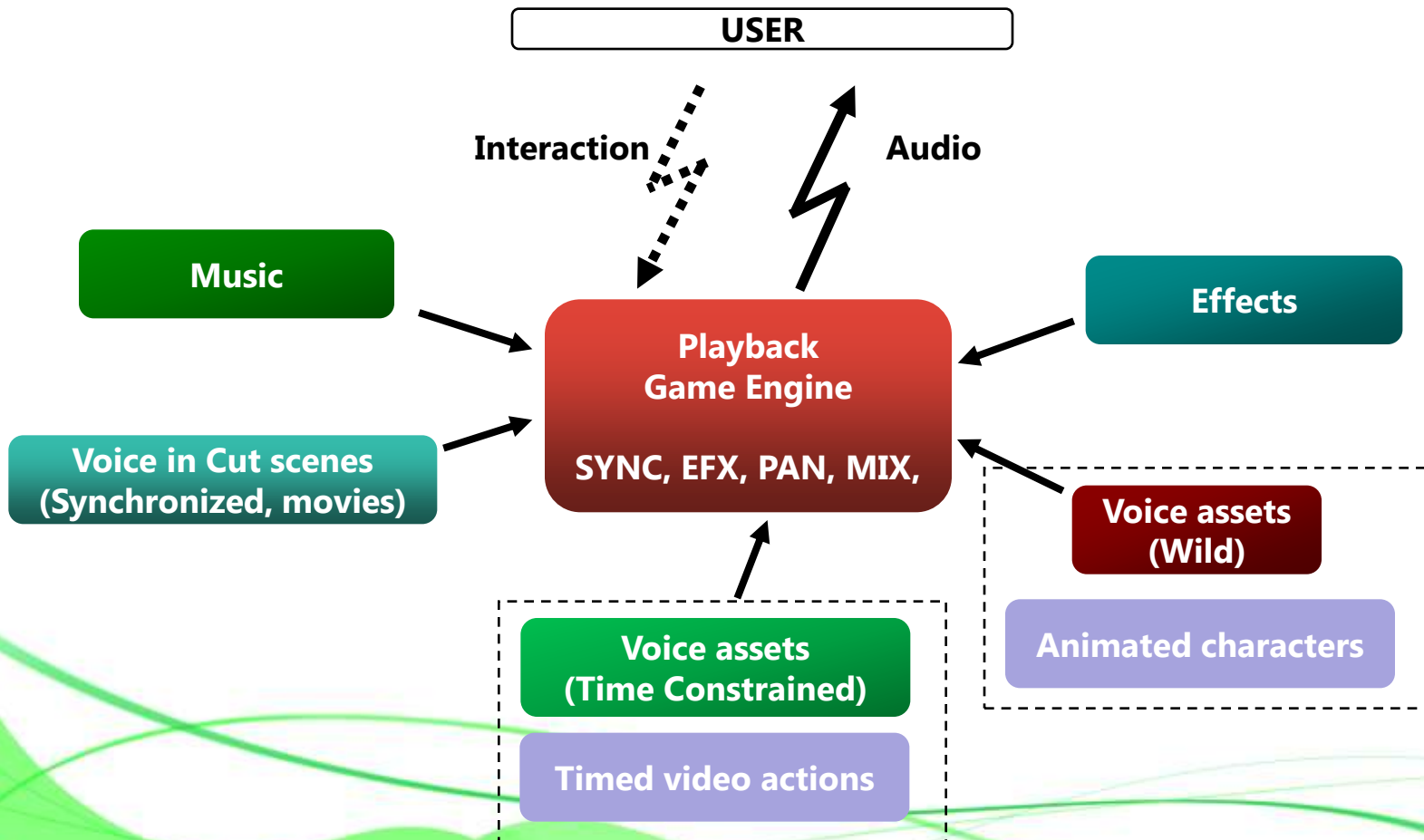
Mixed Tracks



Time



# Videogame audio





## Example: *Fable 2* (Lionhead – Microsoft)

Audio features: synched voice, dynamic panning, dynamic mixing  
Playback example in English, French, Italian





# FILM DUB Pre-production

## Pre-check



Storage and media compatibility  
with  
local studio equipment  
(Digital Betacam tape, DA98 tape,  
ProTools sessions...)

Script time-code

## Asset preparation



If required, specific  
operations can be made  
(digital acquiring, audio conversion...)



# GAME LOC Pre-production (1)

**Formal pre-check**

(all files)



Number of files: complete  
File Names: correct

**Content pre-check**

(TC, SoundSynch, LipSynch)



Script = Original recorded text



## GAME LOC Pre-production (2)

### Assets preparation

Choose how to manage the audio production process

### Script

Arranged to suit the recording and post production needs

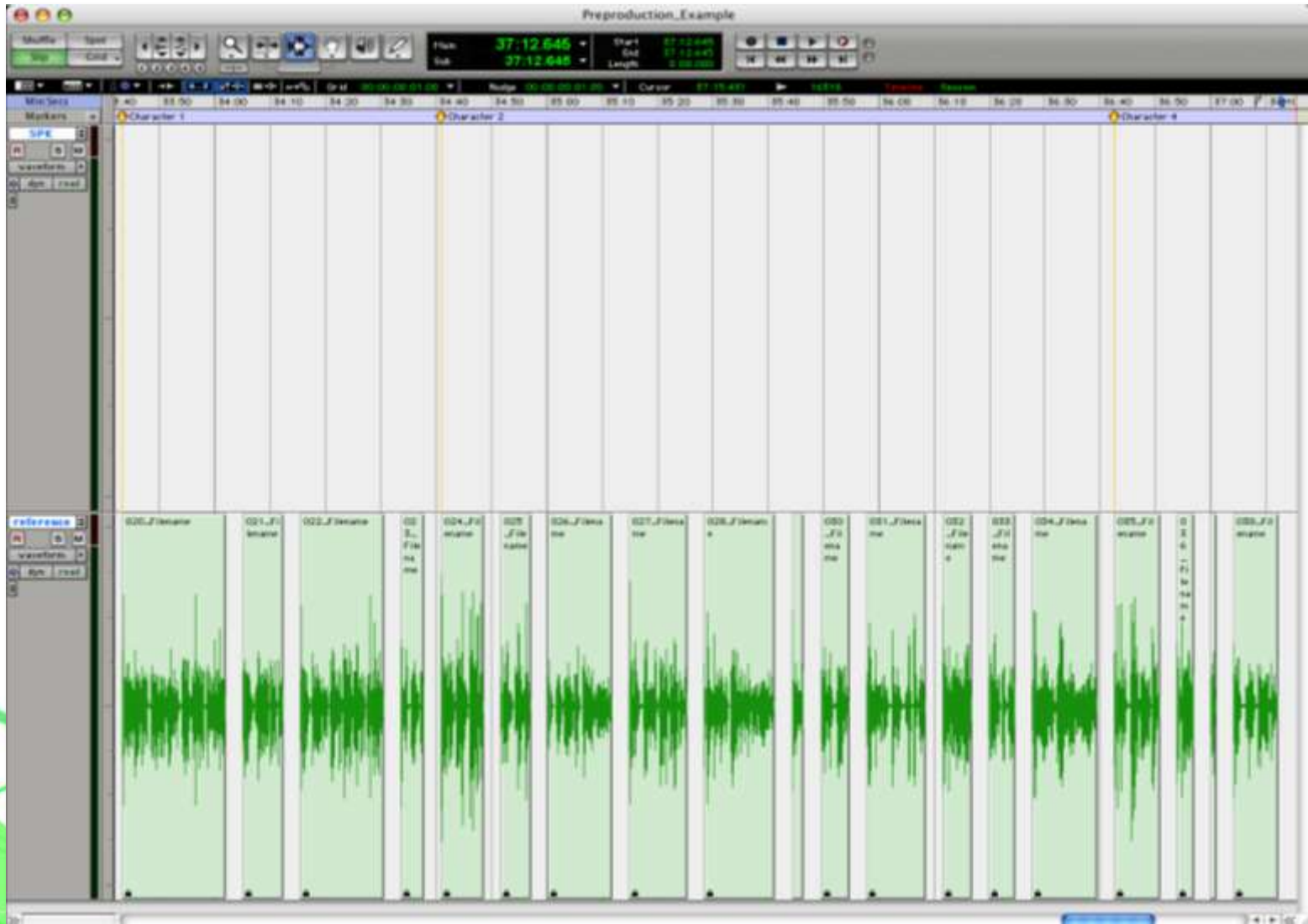
### Audio

- Renaming files adding a progressive number
- Converting audio format
- Importing in a ProTools session
- Place markers into the ProTools session





## Example: *Pro Tools session ready for recording*





# FILM DUB Voice recording

Source material



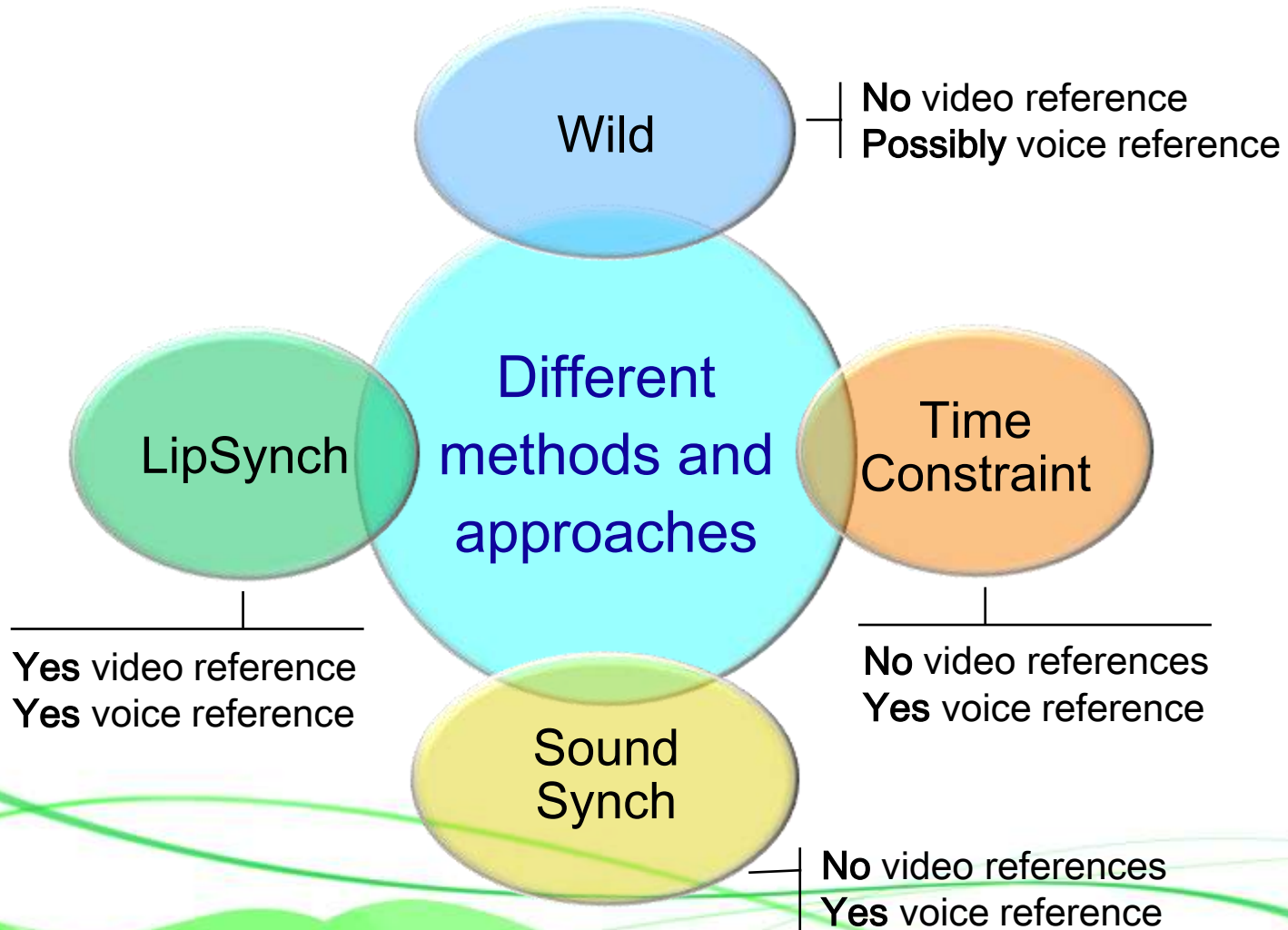
FINAL MOVIE



- Final video footage
- Final music soundtrack
- Final original recorded dialogues
- Final audio effects



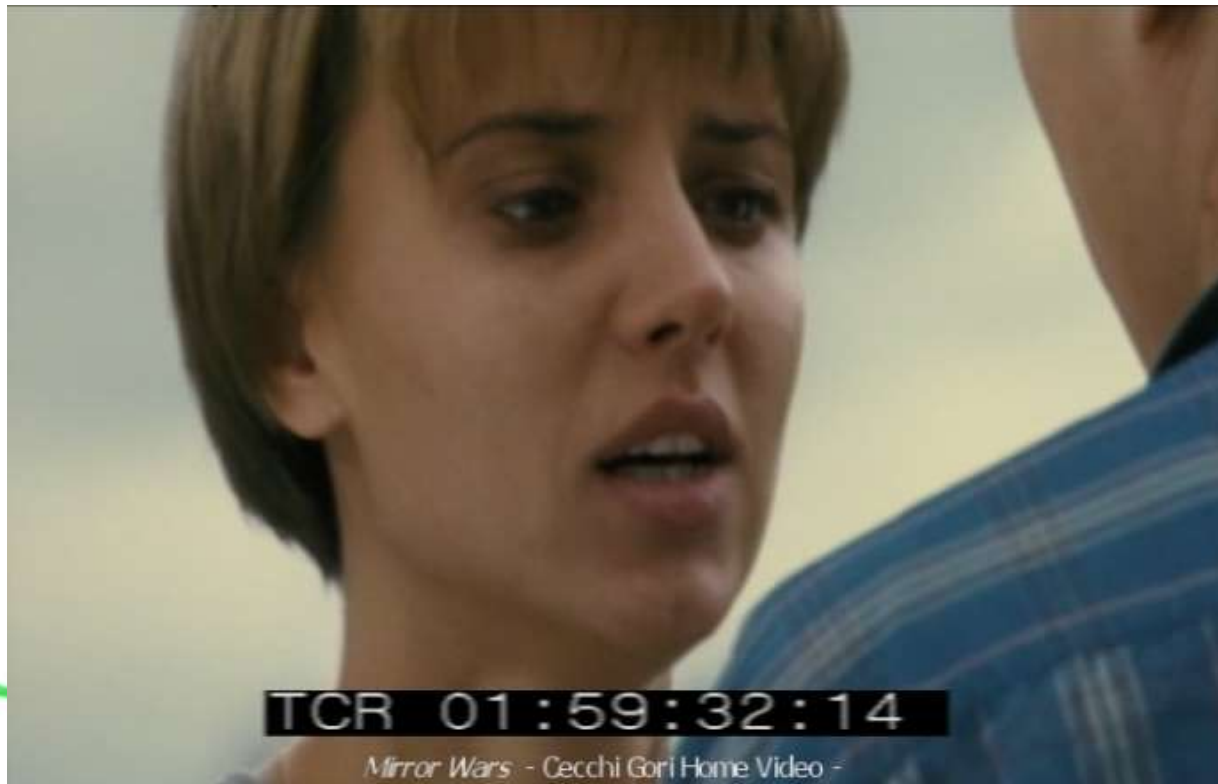
# GAME LOC Voice recording





**Example:** Typical recording session for **movie** dubbing

Audio features: 2 characters interaction, one of them already dubbed





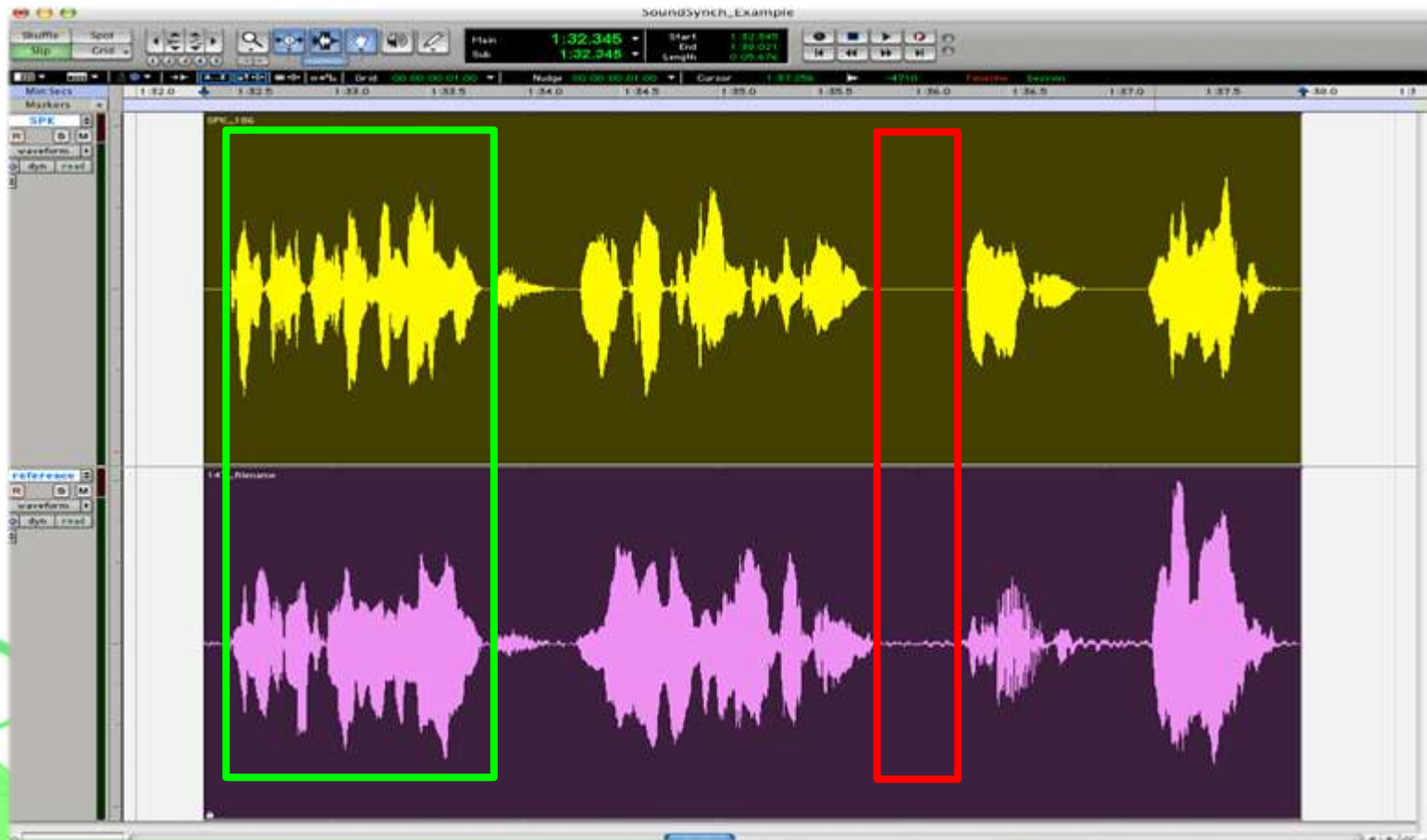
## Example: Typical recording session for game localization





# How to synch without video? Sound Synch!

Used when the synthetic characters rendering not yet completed





# GAME LOC Artistic performance

Local Casting

Local Director

Game Context

- Choice on wide pool
- Professional comedians
- Experience in local TV/Movie dub

- Drawings/images of characters
- Description of characters
- Videogame general plot



Great creative result, suitable for country  
(reviews, community)



# FILM DUB Post-production

## Linear Approach

- Sound engineer follows the dialogues in chronological order.
- Dialogues are processed and mixed with m/e.
- Final audio track will not be changed after post-production
  - Post-production usually done in fully equipped projection theatre
  - Audio is played back exactly as finalized.





## Example: movie post-production work

Adjust cue levels

Set position of the character ( e.g. close up, background ... )

Create ambience ( e.g. reverb, echo on voice and effects )

Process voice ( e.g. behind a door, talking on the phone...)





# GAME LOC Post-production

## Non-linear, and dynamic approach

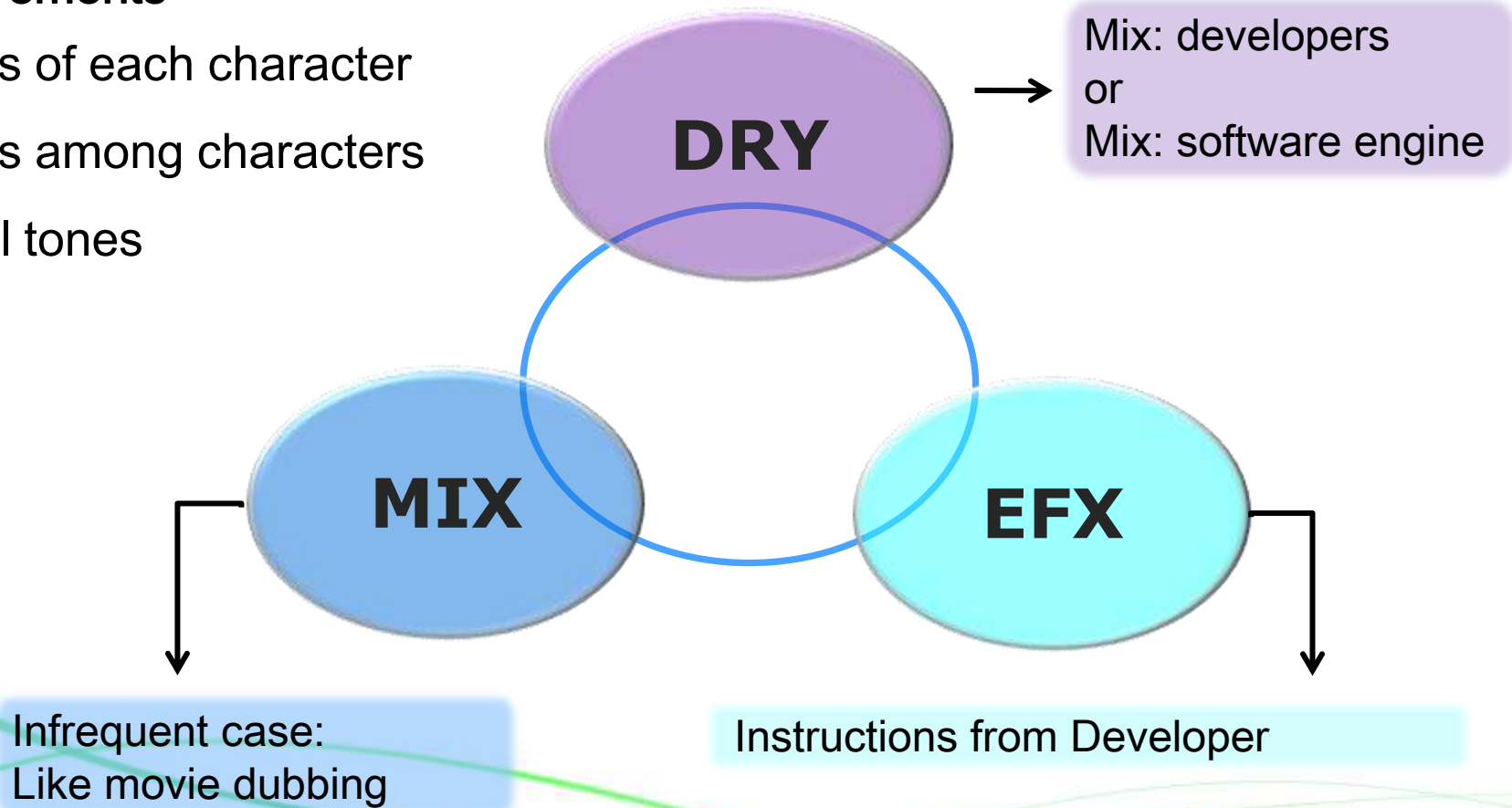
- No information about **where** and **when** files will be played
- Each file is played at the right time by software engine
  - Programmed by the game developers.
  - Chosen by the player.
- Handback to developer: set of thousands of files



# Mastering scenarios

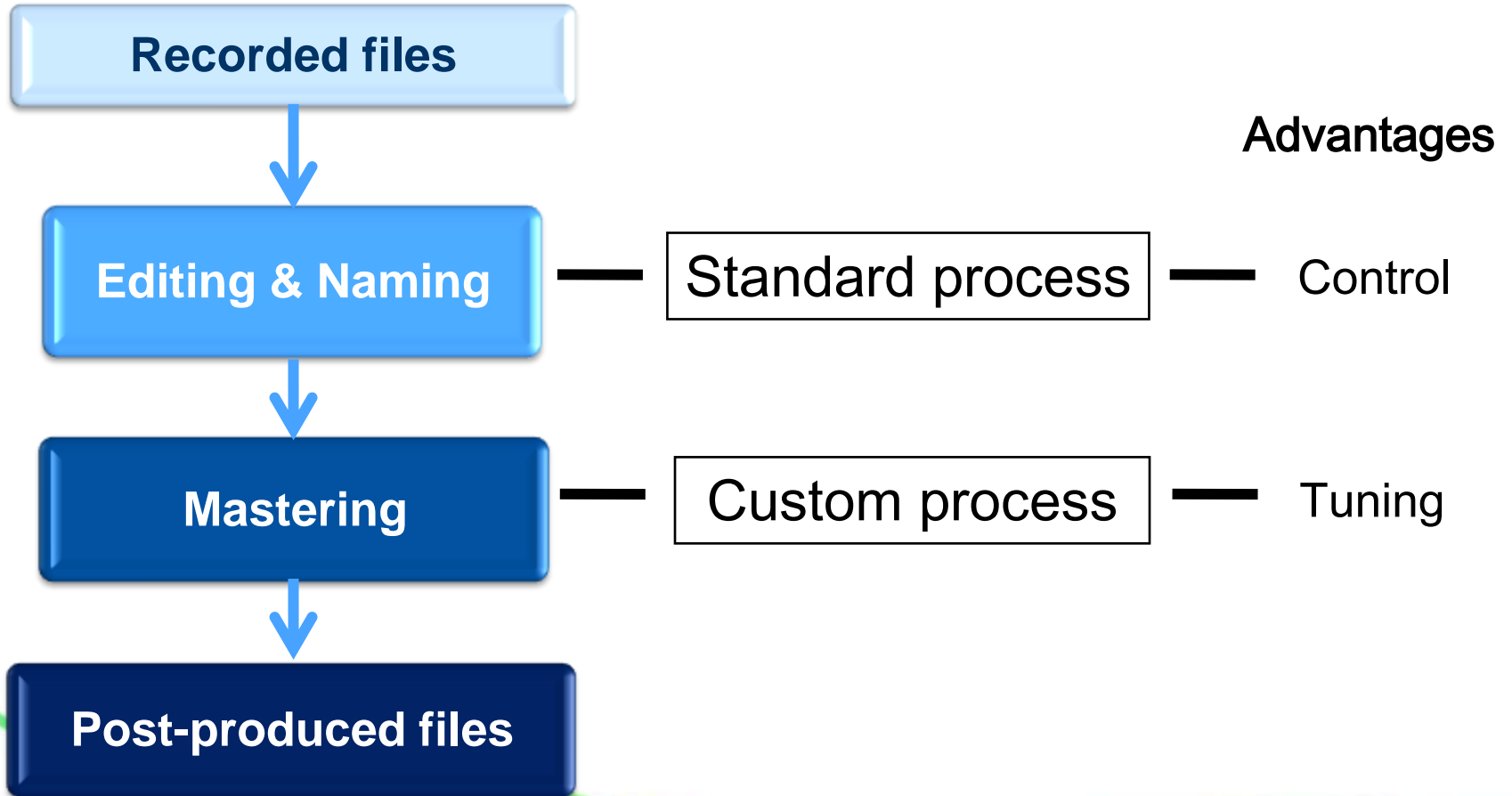
## Requirements

- levels of each character
- levels among characters
- vocal tones





# Process breakdown





# FILM DUB Quality Assurance

- QA made mostly during post-production
- Final full film review takes a couple of hours
- Minor changes to:
  - Synchronization
  - Fields
  - Levels



# GAME LOC Quality Assurance

## (1) Before delivery for integration

Proof-listening

Audio Quality report

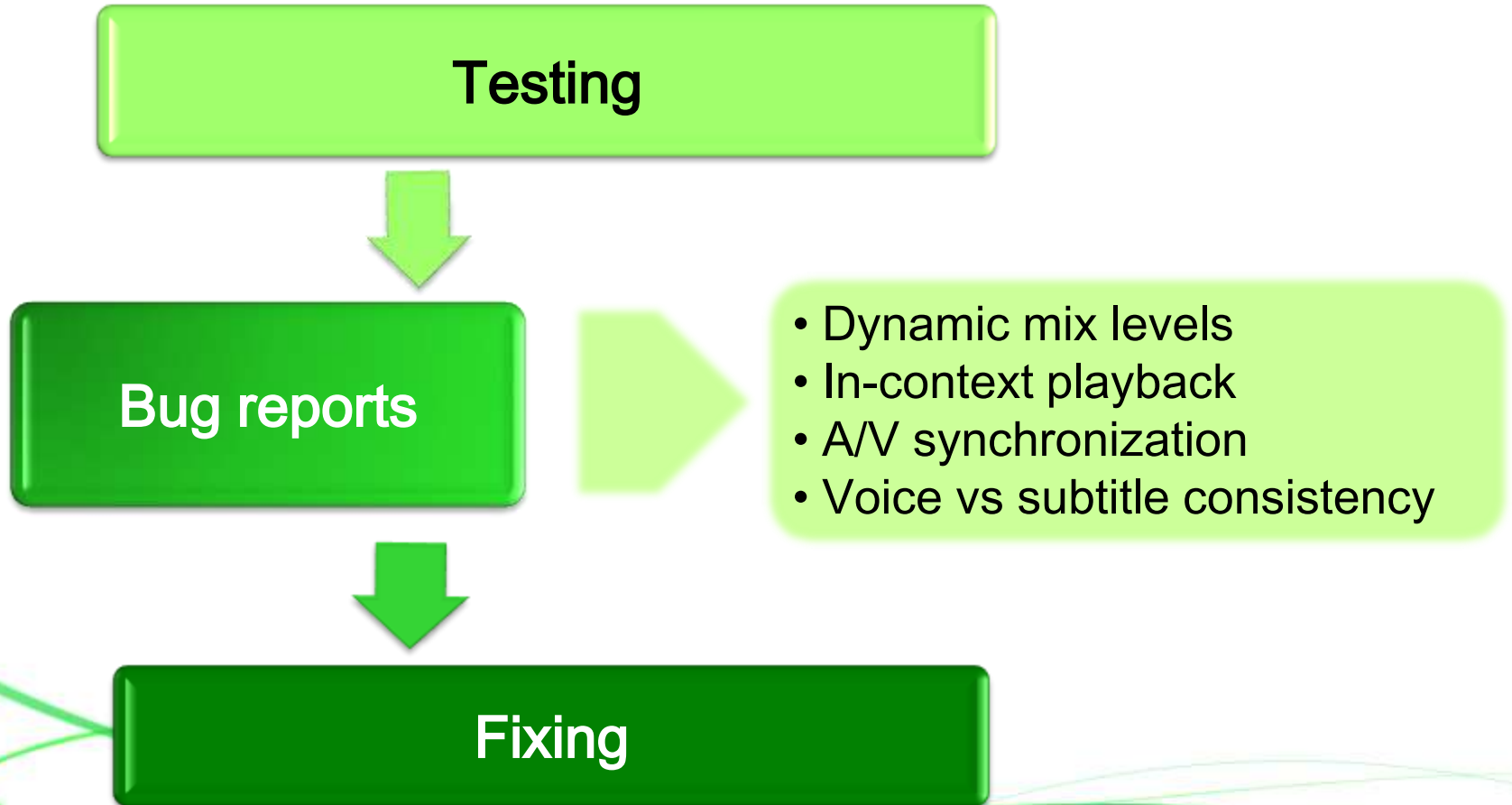
Fixing

- Double takes
- Noises
- Wrong edits
- File shifts
- Empty files
- Wrong filenames
- Missing files



# GAME LOC Quality Assurance

## (2) After integration





## Example: *Heavenly Sword* (Ninja Theory – SCEEE)

- Sequence captured from 4 different PS3 game plays
- Voice recorded in 4 countries.
  - Old man: Italian, Lady: French, Warrior1: Spanish, Warrior2: French
- Recording with Sound Synch method (no video reference!)
- Pre and post-production done at one central location







# Conclusions

- Audio localization for games:
  - similar but different from movie dubbing
  - more and more integrated with original game production
- Challenges:
  - context for actors
  - files management and Quality Assurance
- Opportunities:
  - produce top quality, artistic multilingual dubbing
  - meet expectations of players around the world



# Thanks for your attention

## Questions?

Contact information: [info@binarisonori.com](mailto:info@binarisonori.com)

Presentation available from CEDEC website  
English and Japanese versions