



# Adapting Linear Audio Techniques to Improve Voyeurism and Emotional Engagement in Horror Games

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Audio Director Supermassive Games

**GAME DEVELOPERS CONFERENCE**

MARCH 18-22, 2019 | #GDC19

# Supermassive Games

- BAFTA-winning, independent game studio
- Reputation for innovation in storytelling and VR
- Founded in 2008
- 150+ talented individuals
- Best known for the critically acclaimed PS4 hit Until Dawn.
- Recently announced The Dark Pictures Anthology (a series of stand-alone, horror games for PS4, Xbox and PC)
- The first game is Man of Medan - coming out in 2019.

# Adapting Linear Audio Techniques to improve Voyeurism and Emotional Engagement in Horror Games

What does this title mean?



# Adapting Linear Audio Techniques to improve Voyeurism and Emotional Engagement in Horror Games

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- Adapt linear / film techniques into our games
- Adapt game systems to suit our game design

# Adapting Linear Audio Techniques to improve Voyeurism and Emotional Engagement in Horror Games

What does this title mean?

- Adapt linear / film techniques into our games
- Adapt game systems to suit our game design
- Improve player's emotional engagement and sense of voyeurism

# Adapting Linear Audio Techniques to improve Voyeurism and Emotional Engagement in Horror Games

## Voyeurism

- Direct – killer POV
- Observer / unseen – ‘in the scene’
  - Enhanced cinematic voyeurism

# Adapting Linear Audio Techniques to improve Voyeurism and Emotional Engagement in Horror Games

## Voyeurism

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Quote – scene360.com

*“...movies work as meta texts because they directly appeal to our inherent voyeuristic nature as humans. Watching other peoples lives... unseen, is a privilege the cinema affords.”*

# Adapting Linear Audio Techniques to improve Voyeurism and Emotional Engagement in Horror Games

Improving player engagement

- Foley – believable characters
- Attenuations – voyeurism
- Mix – dialog
- Music - approach



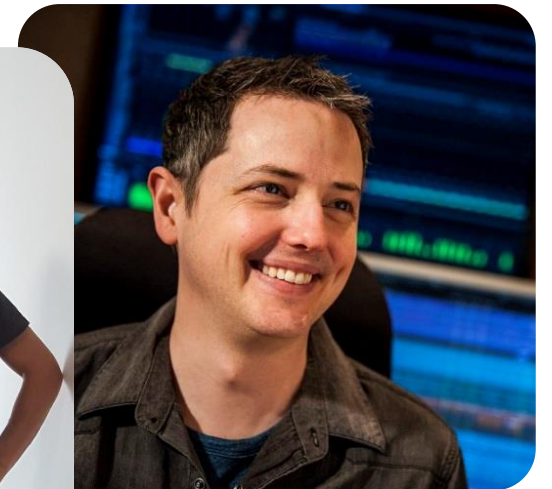
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Improving player engagement

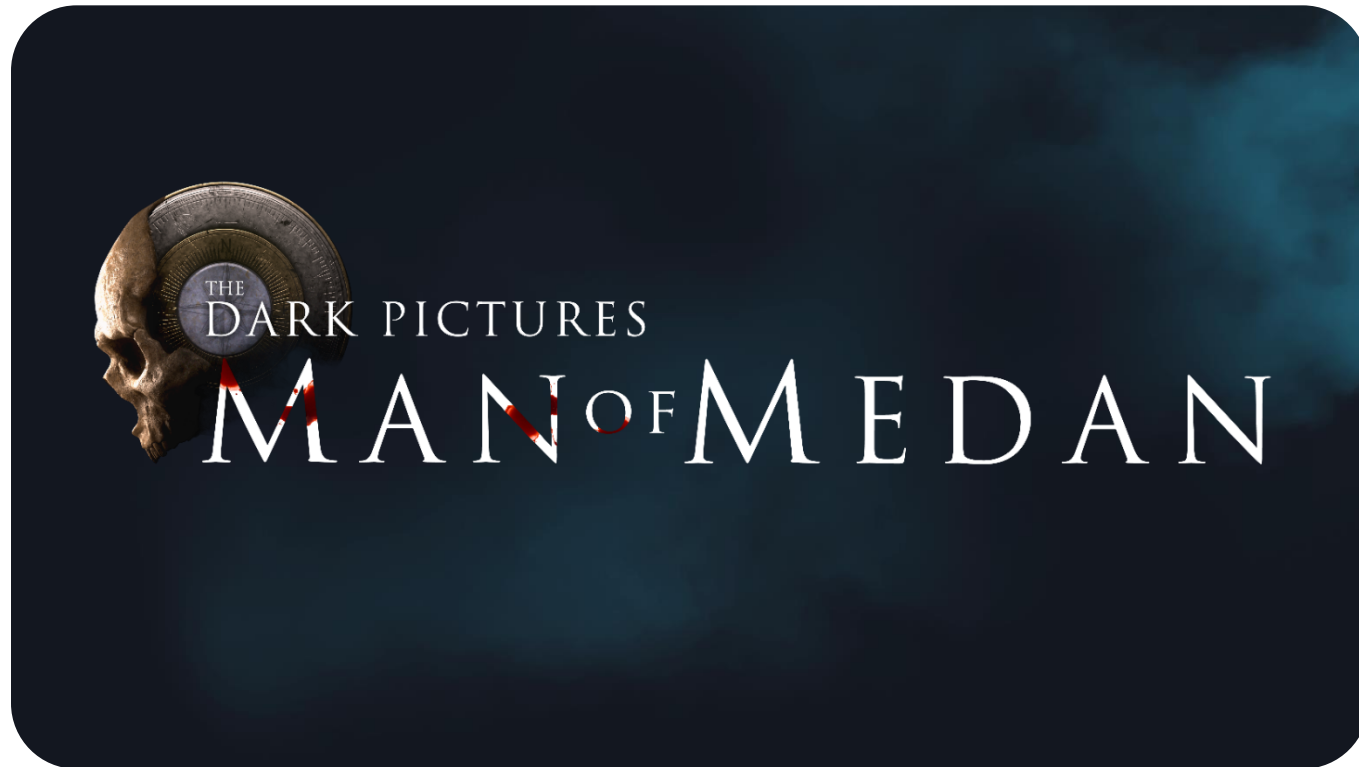
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# Audio team and composer Jason Graves



# Example Games



# Example Games



79

## Metascore

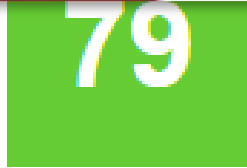
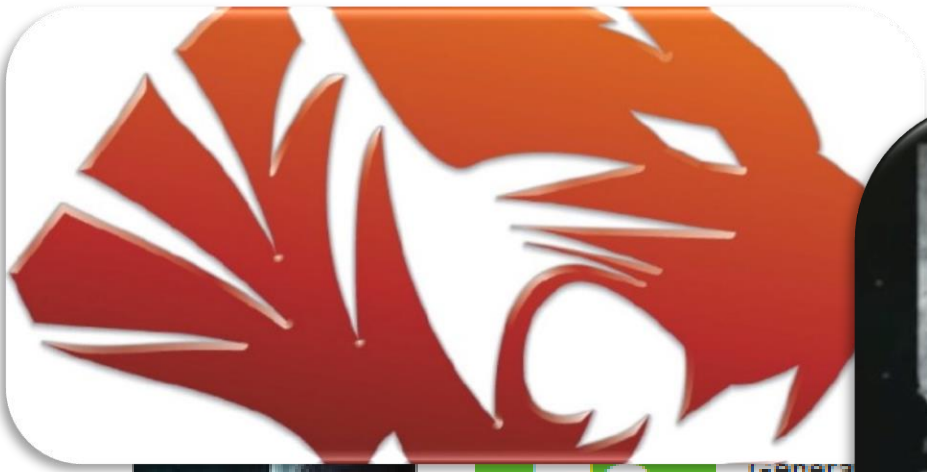
Generally favorable reviews  
based on [103 Critics](#)

[What's this?](#)

Summary: When 8 friends become trapped on a rem  
mountain getaway gone wrong, things quickly turn sin  
summary: When 8 friends become trapped on a rem







General  
based on

What's

Summary: When 8 friends  
mountain getaway gone wrong

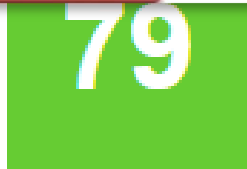
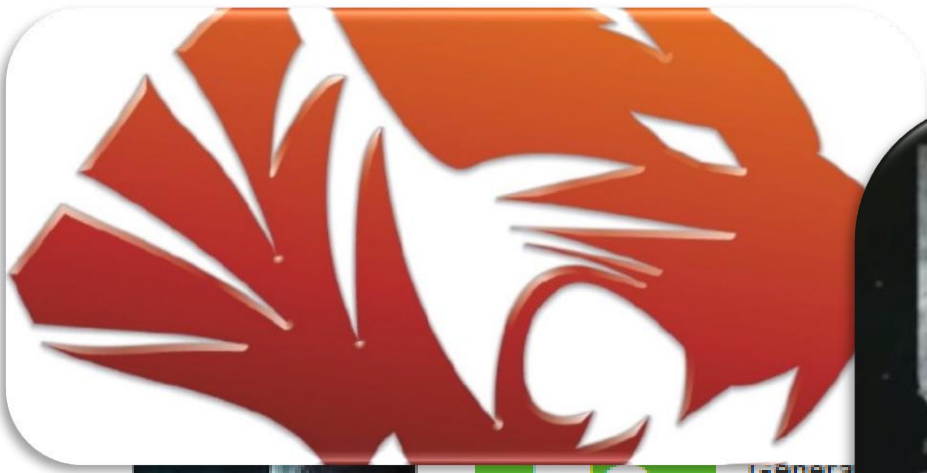


NEOGAF HORROR GAME OF THE YEAR



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General  
based on

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Summary: When 8 friends  
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PS4 Only On PlayStation.



Liferebooted  
Member

It has the world's most amazing towel...

NEOGAF HORROR GAME OF THE YEAR

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Warning!!  
\*\*Profanity and gore\*\*



# Trailers





# Game Design

- 3rd person supernatural / psychological horror
- Play your film



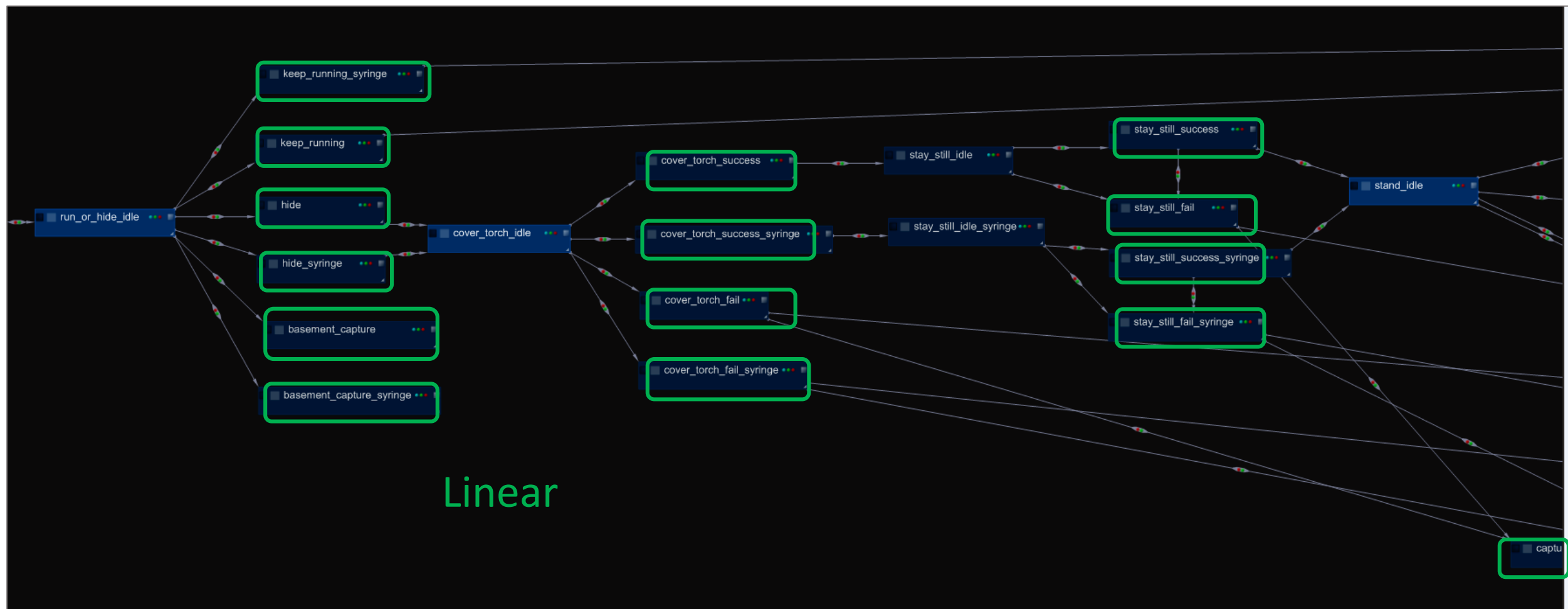
# Game Design

- 3rd person supernatural / psychological horror
- Play your film
- Branching narrative
  - All characters can die, all can survive

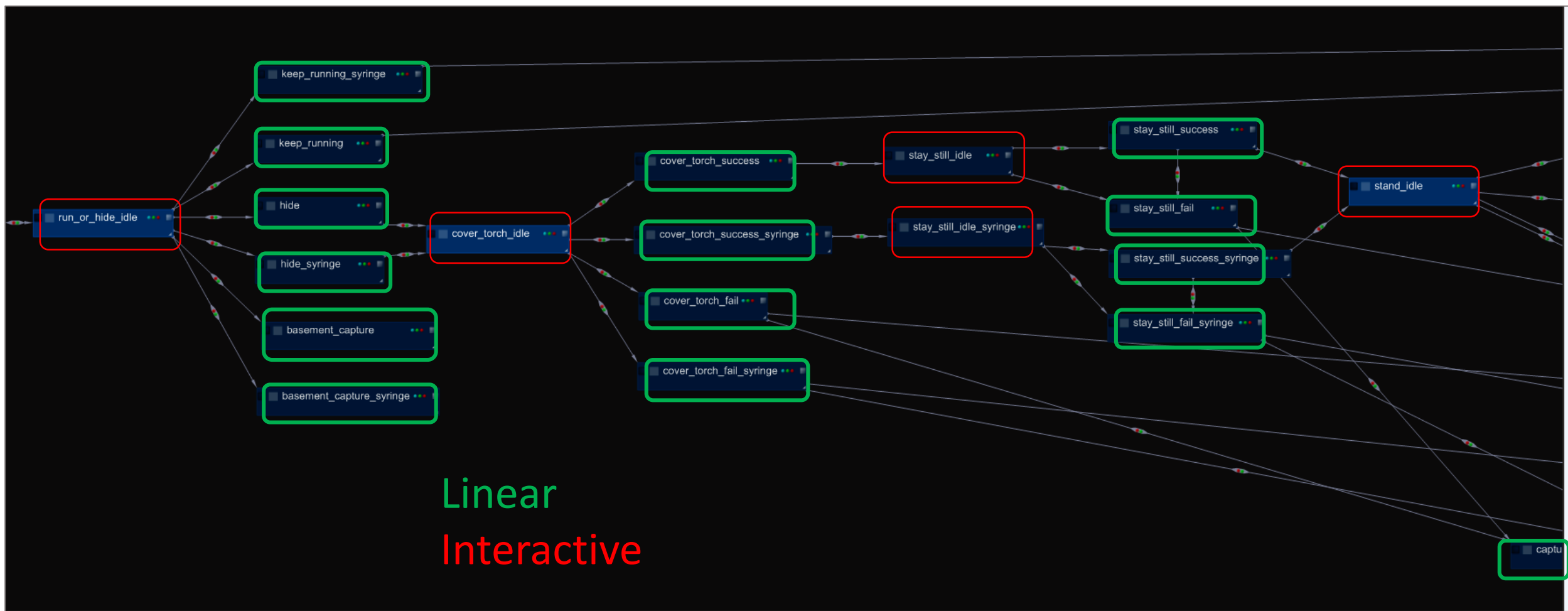


# Game Design

- 3rd person supernatural / psychological horror
- Play your film
- Branching narrative
  - Adapted film edit techniques
    - Improved emotional nuance
    - Improved player immersion



Linear



# Linear

Character Dialogue

Character Dialogue

Character Dialogue

Character Dialogue

Character Foley – procedural / system

SFX - spots

SFX - spots

SFX - spots

Character Foley – linear overlay

*Music and sound design – continuous with in seq triggers*

*Atmospheres - continuous*

# Interactive

## Exploration

Character Dialogue

Character Foley – procedural / system

Character Foley – linear overlay

AMB - spots

SFX - spots

*Music and sound design – continuous*

*Atmospheres - continuous*

## QTE / Combat

Character Dialogue

Character Foley – procedural / system

Character Foley – linear overlay

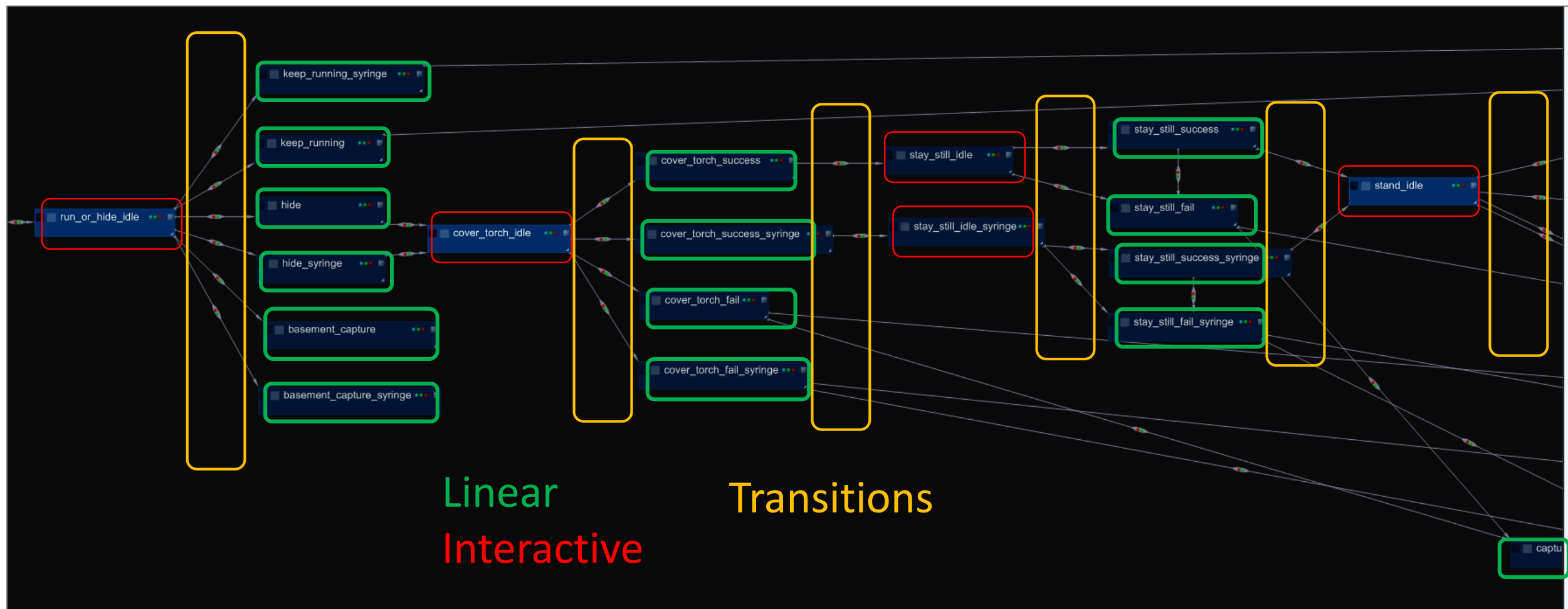
AMB - spots

SFX - spots

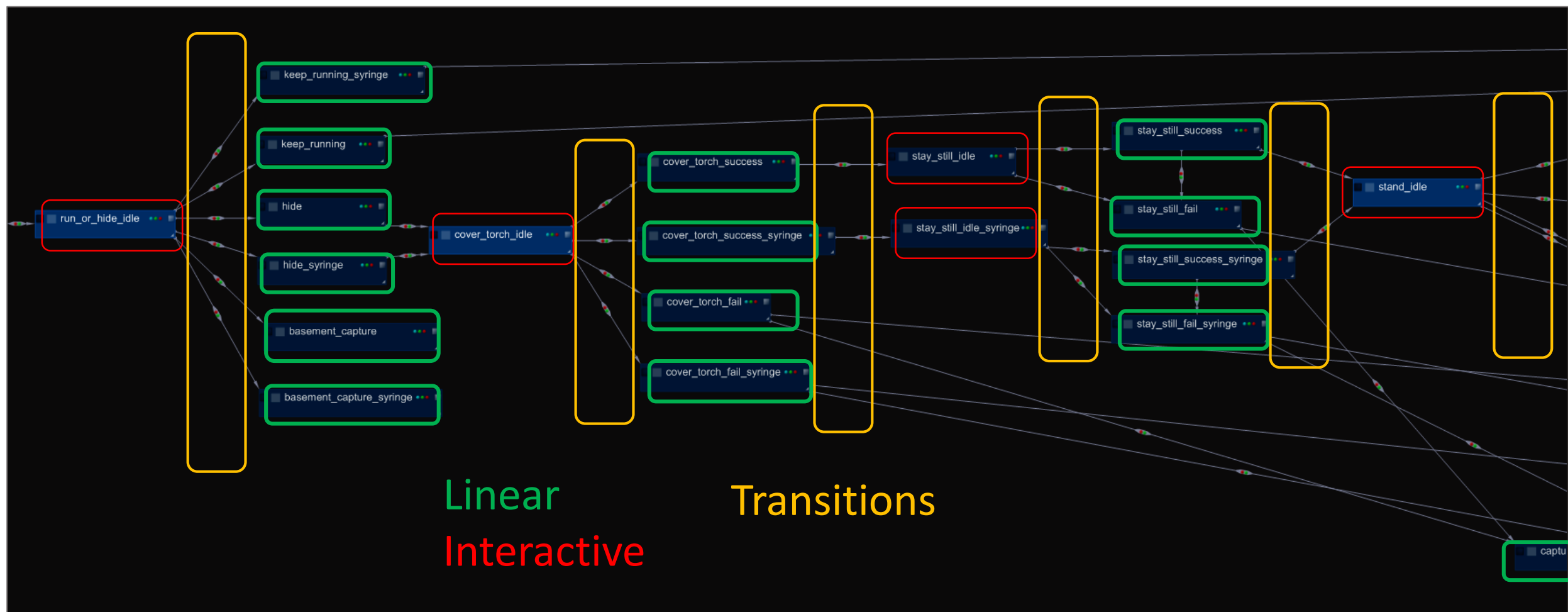
*Music and sound design – continuous*

UI SFX

*Atmospheres - continuous*







# Foley – believable characters



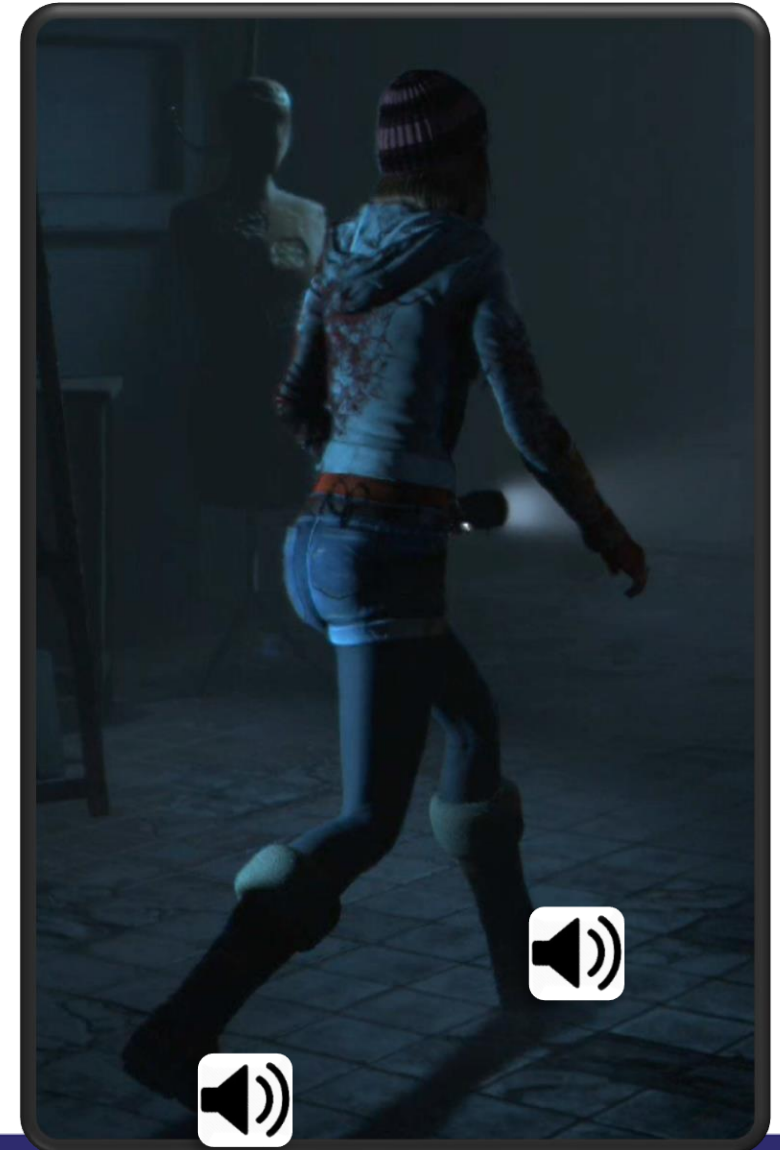
# Foley – believable characters

- Mocap and IK = infinite range of movement



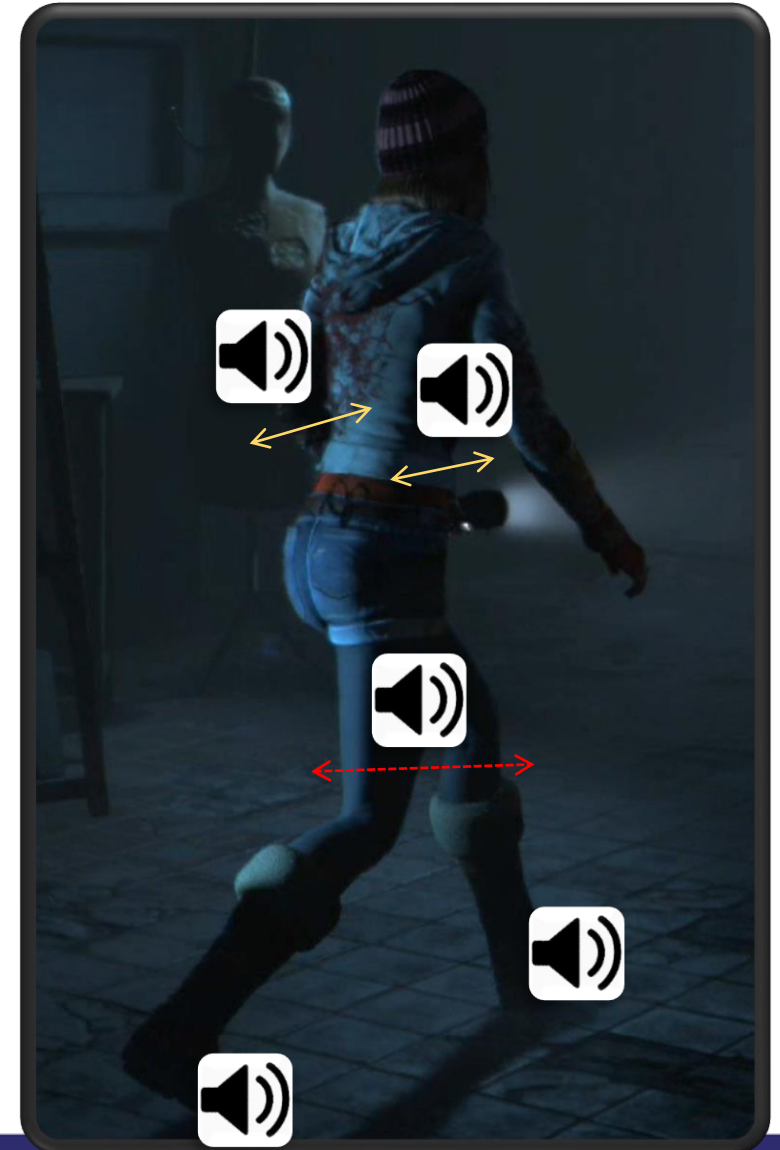
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  - Footsteps with surface types



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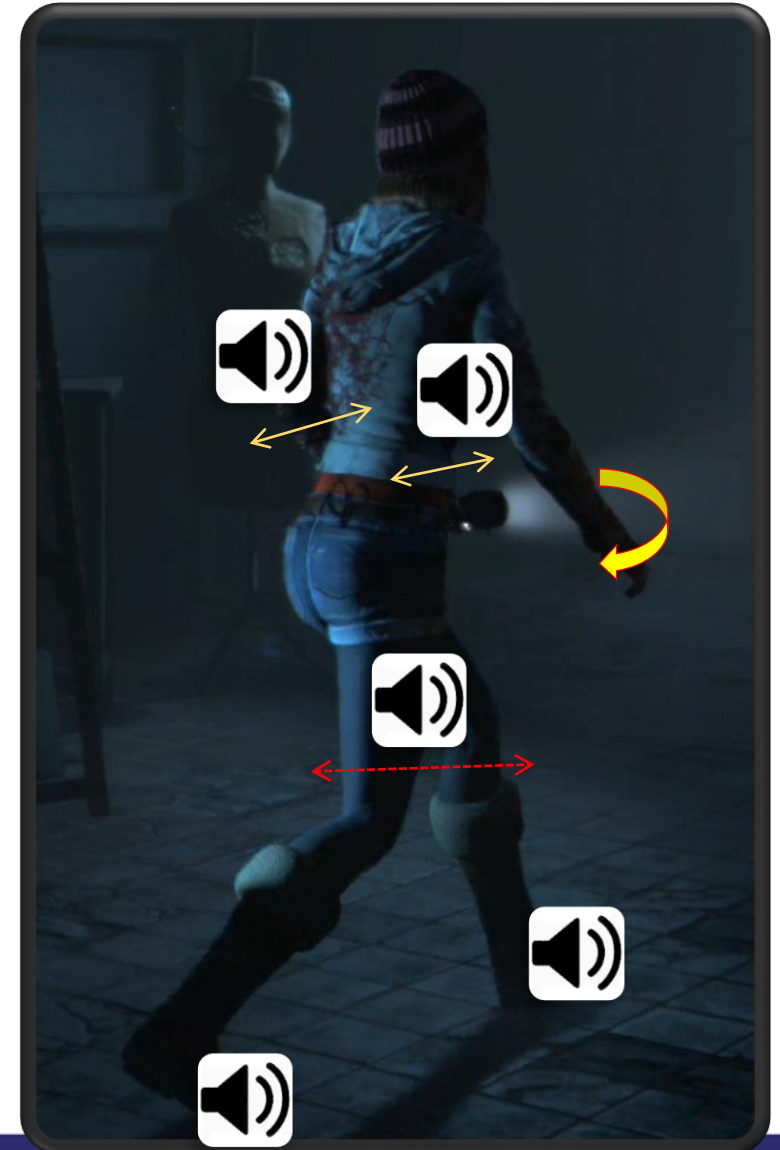
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  - Footsteps with surface types
  - Cloth knee pass trigger
  - Cloth elbow pass





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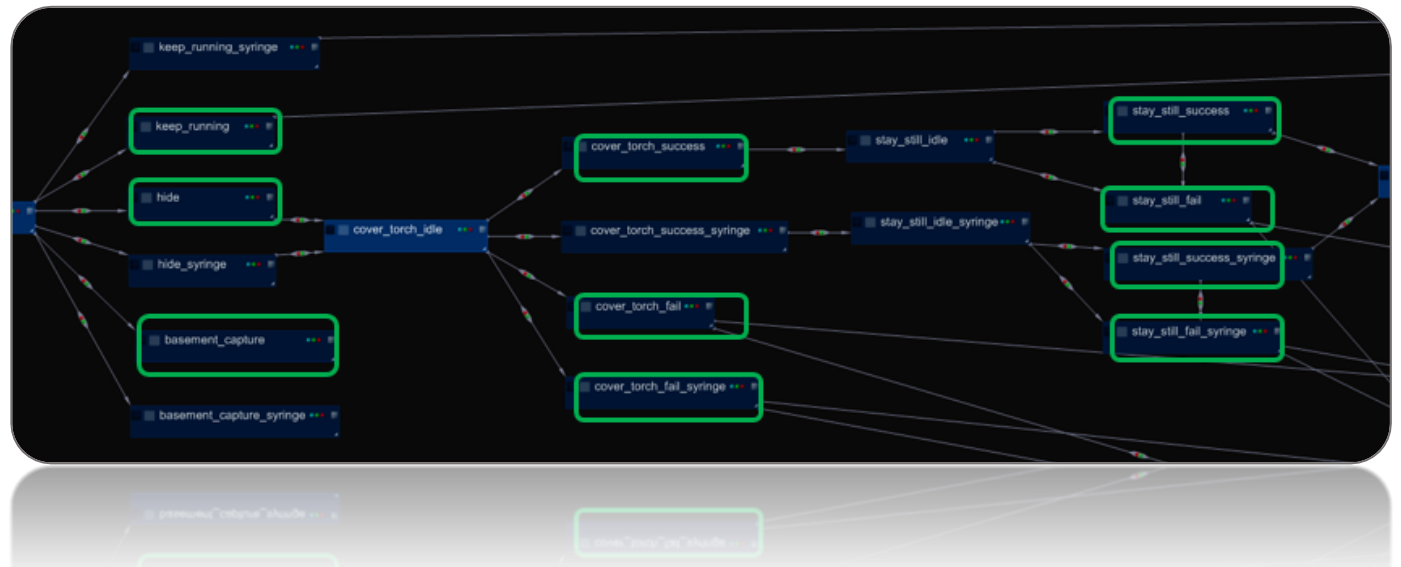
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- Mocap and IK = infinite range of movement
- Procedural foley systems
  - Footsteps with surface types
  - Cloth knee pass trigger
  - Cloth elbow pass
  - Cloth wrist IK
- Opportunity for more...



# Foley – believable characters

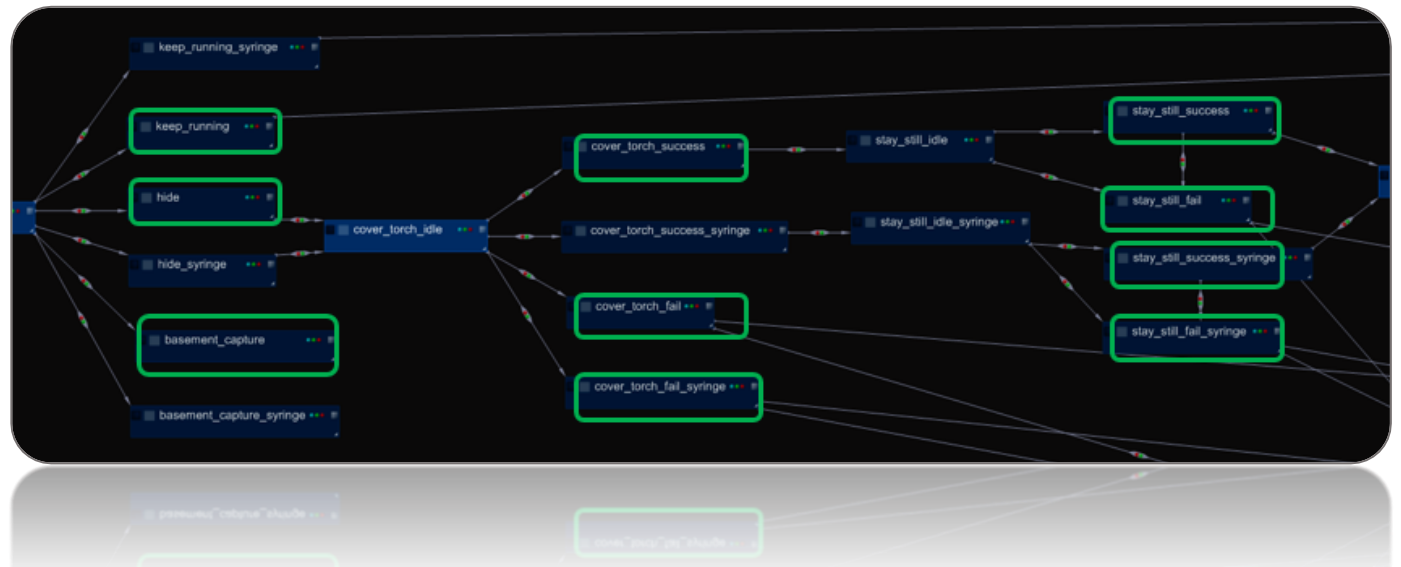
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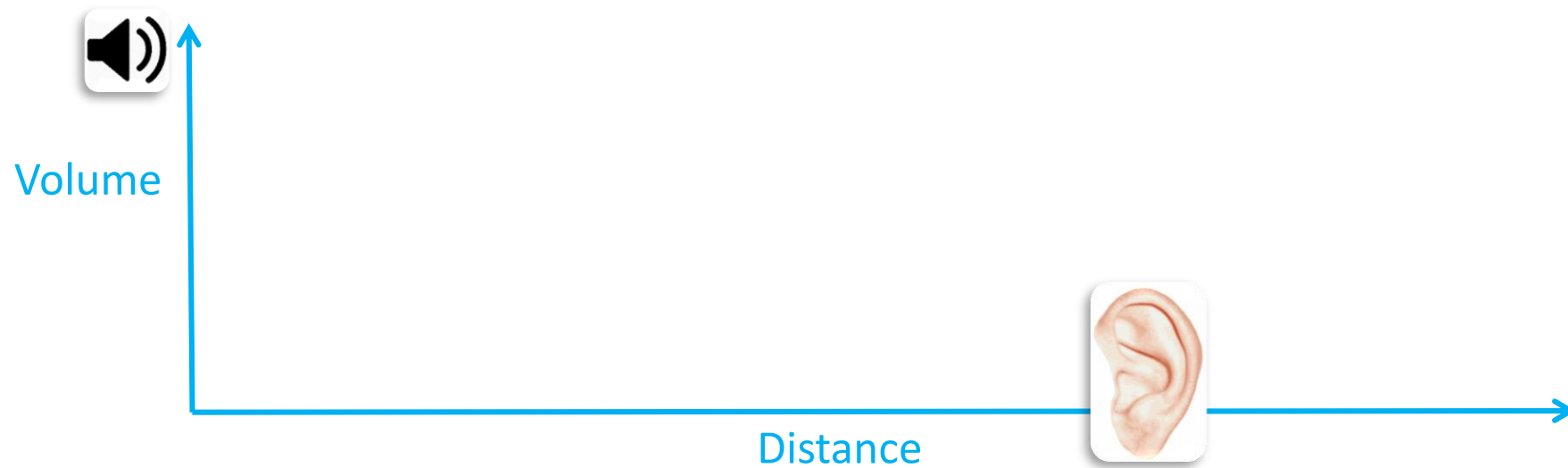
# Attenuations and voyeurism

Attenuation  
editor



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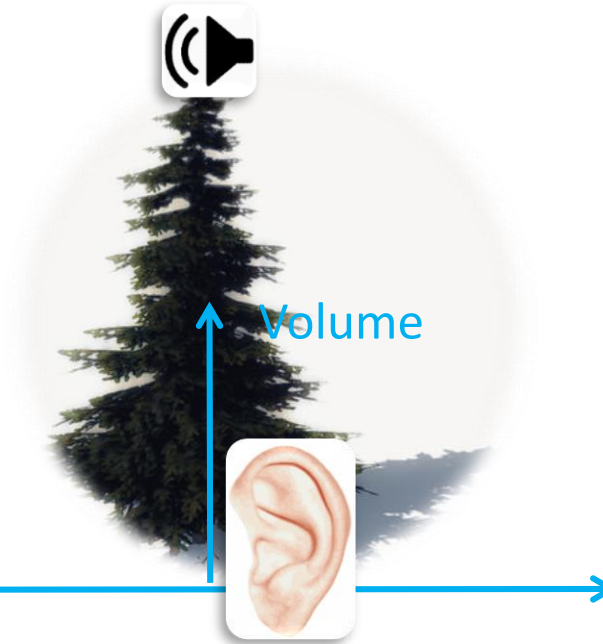
# Attenuations and voyeurism



Volume

Distance

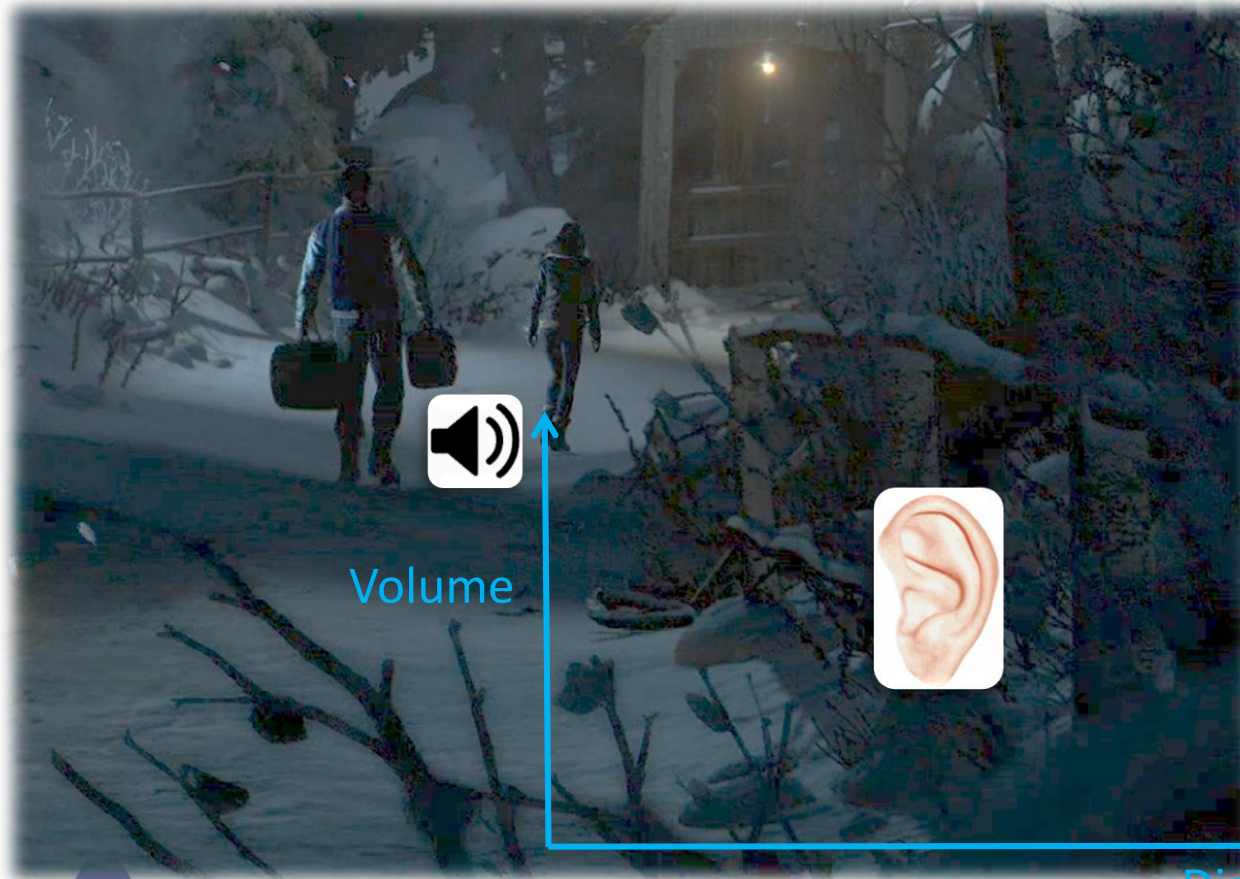
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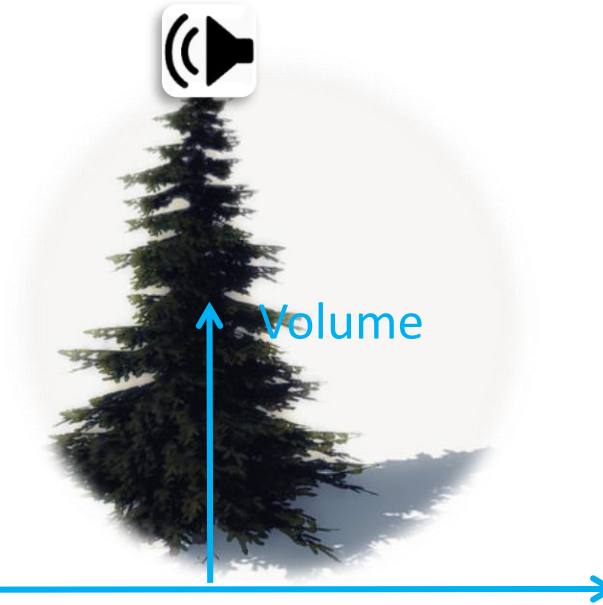
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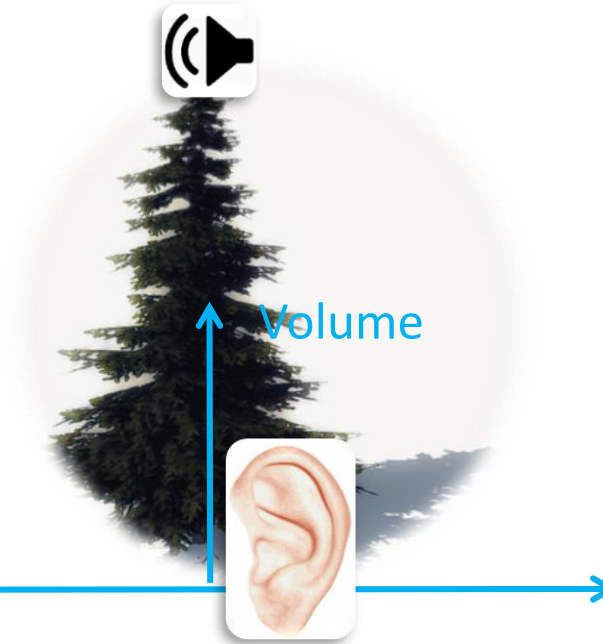
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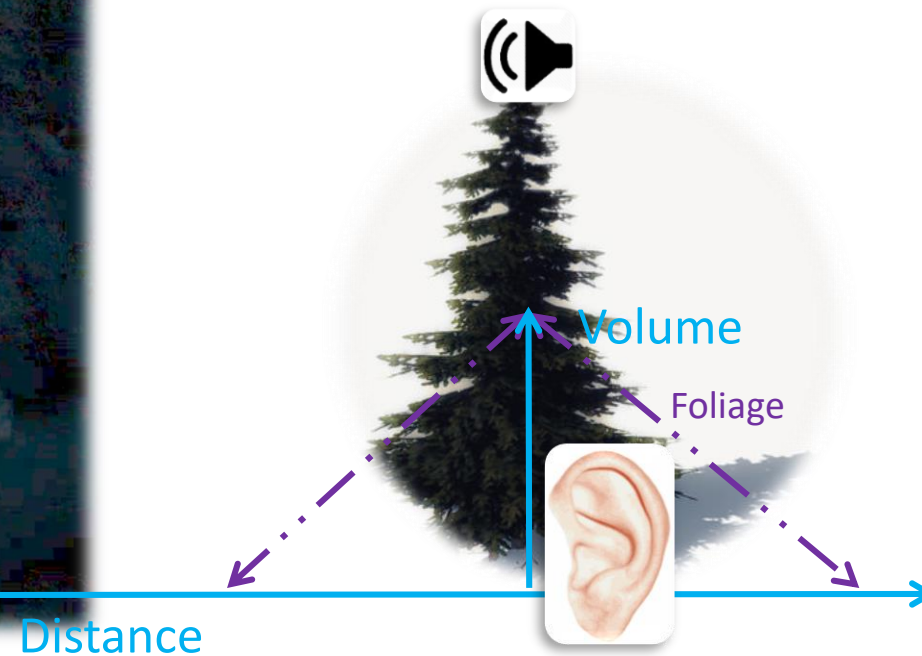
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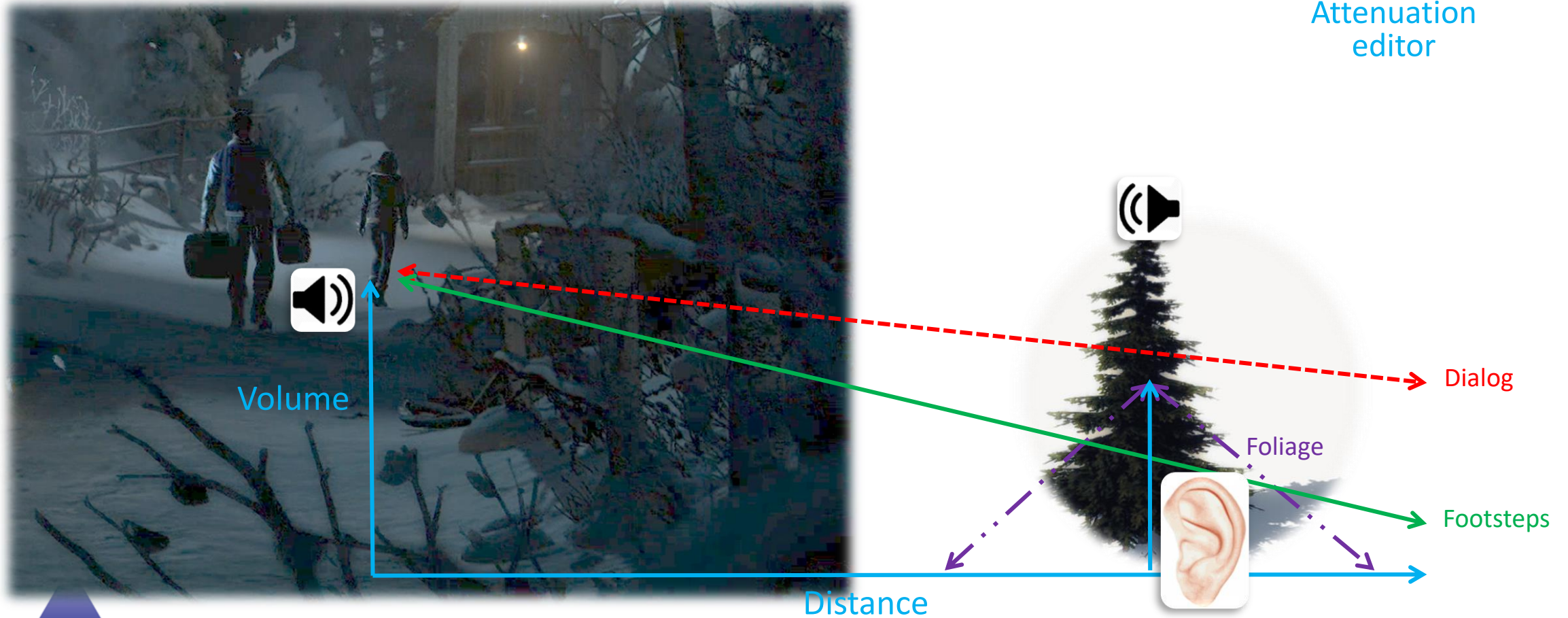
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Attenuation  
editor

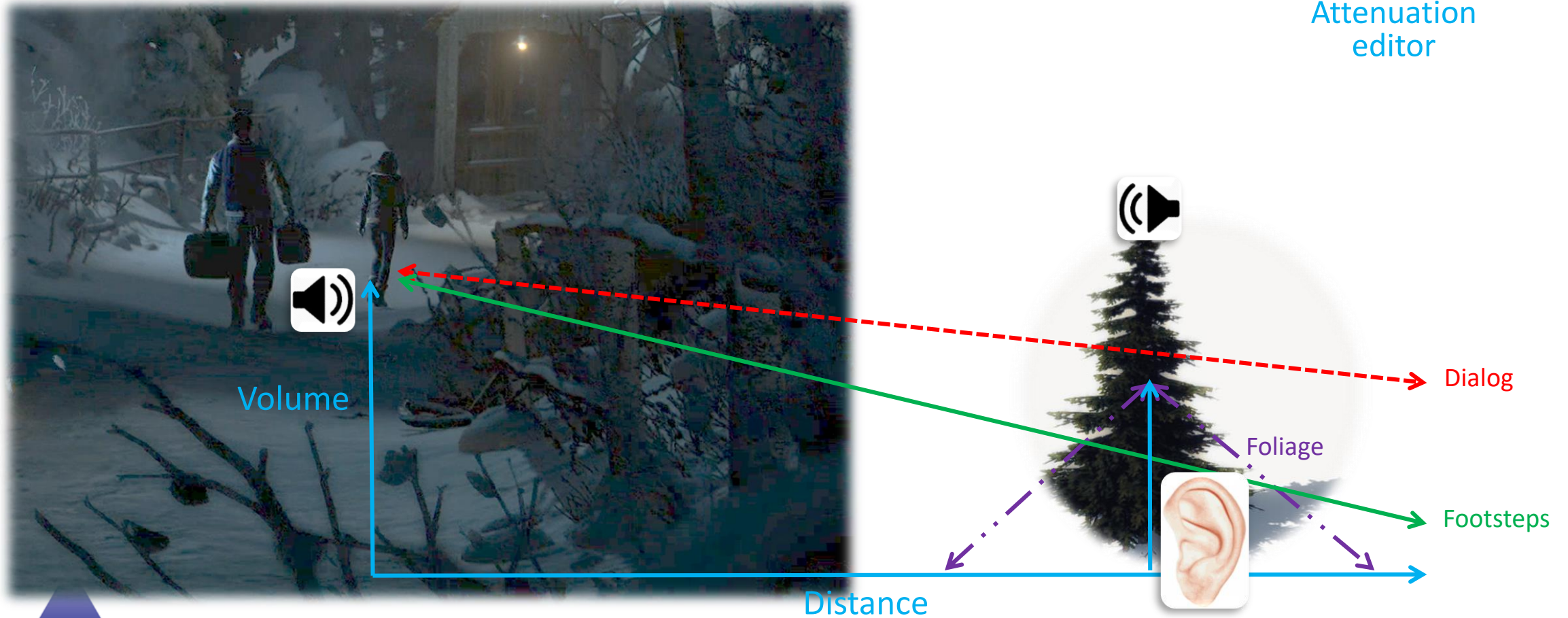


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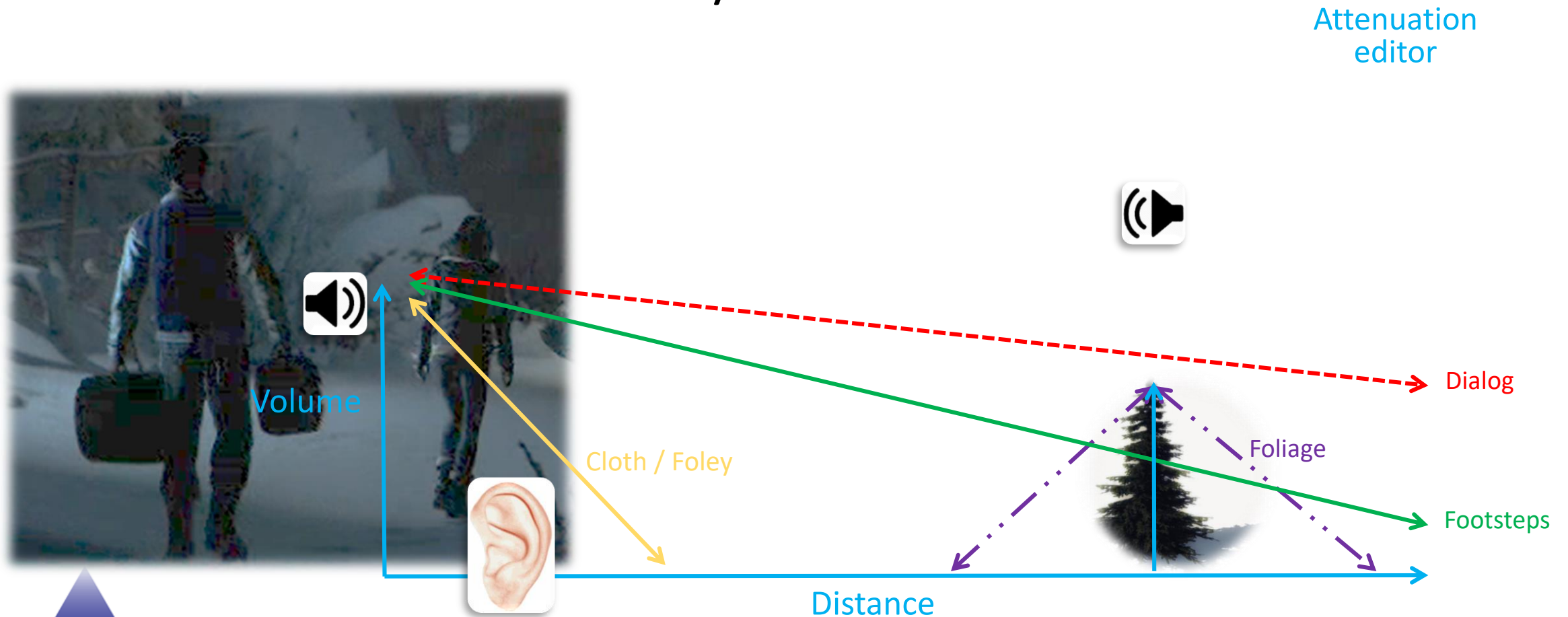


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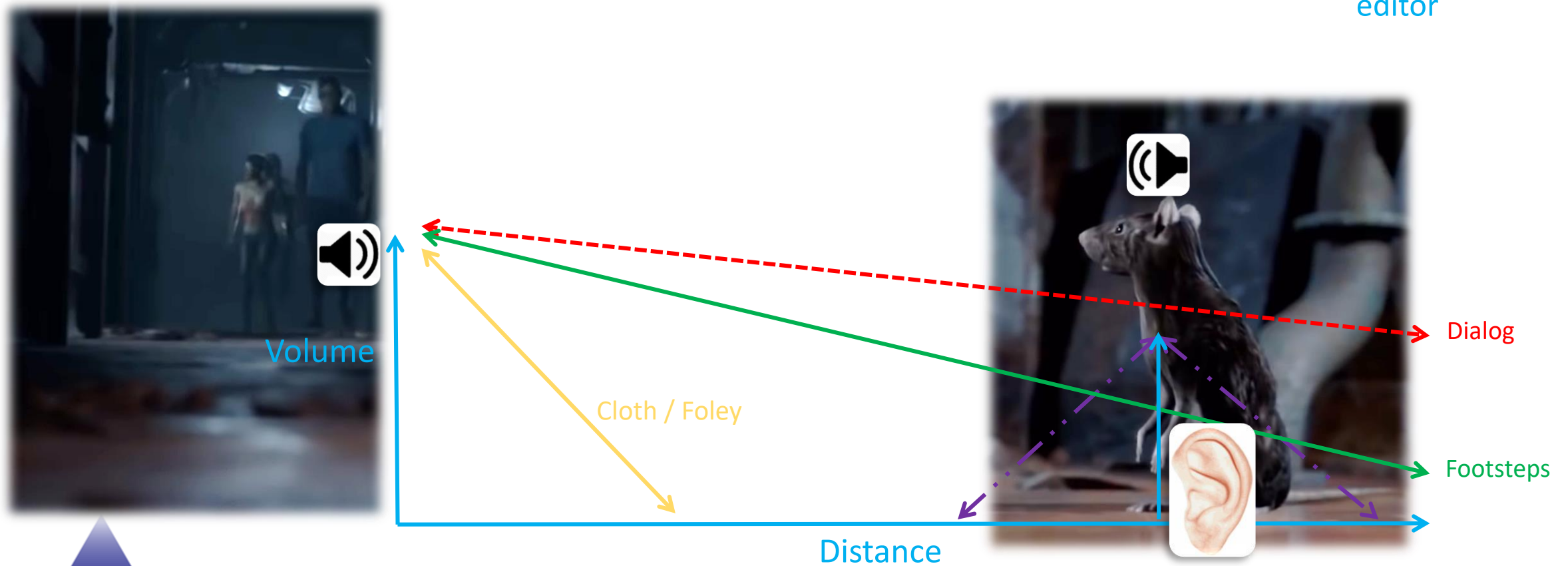




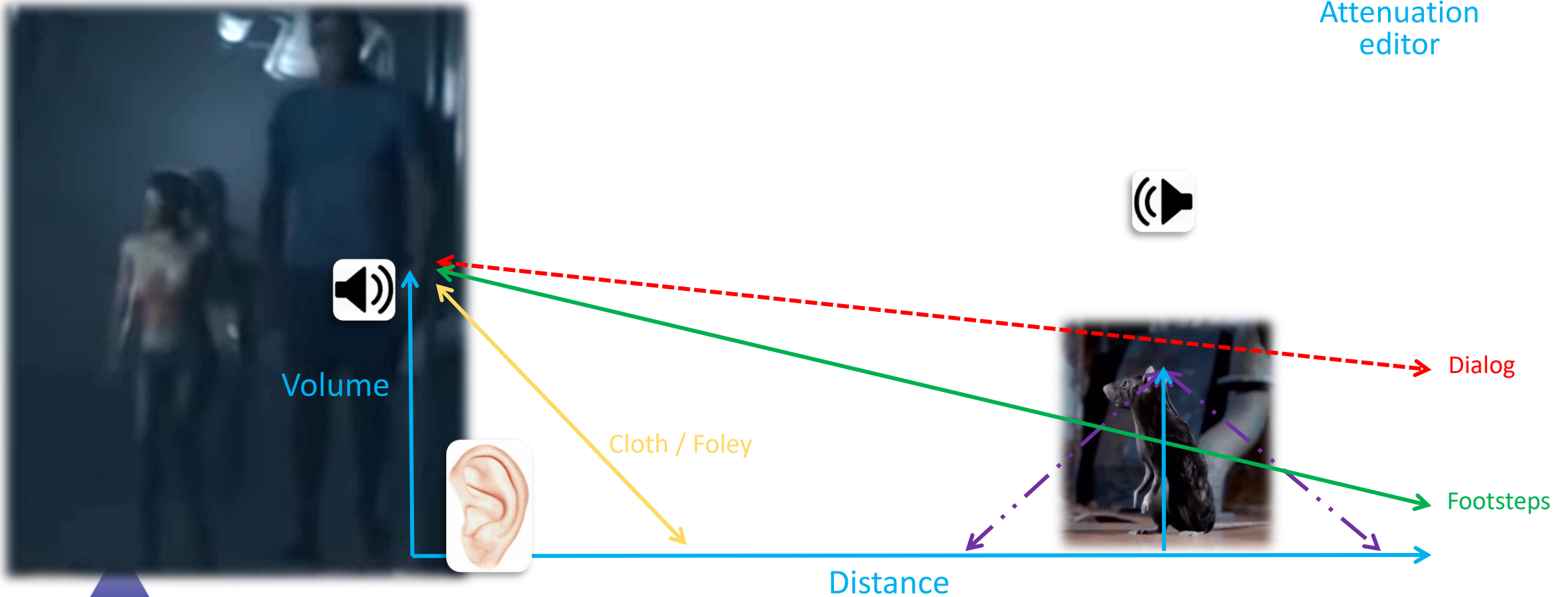
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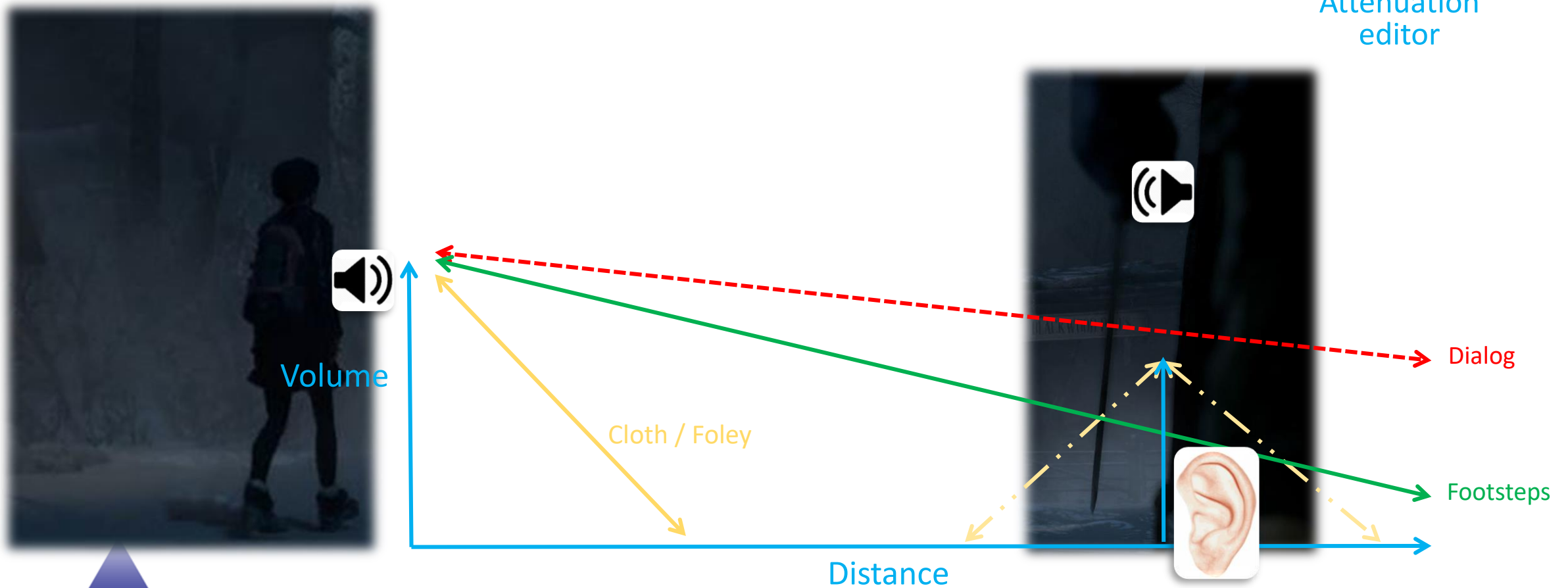
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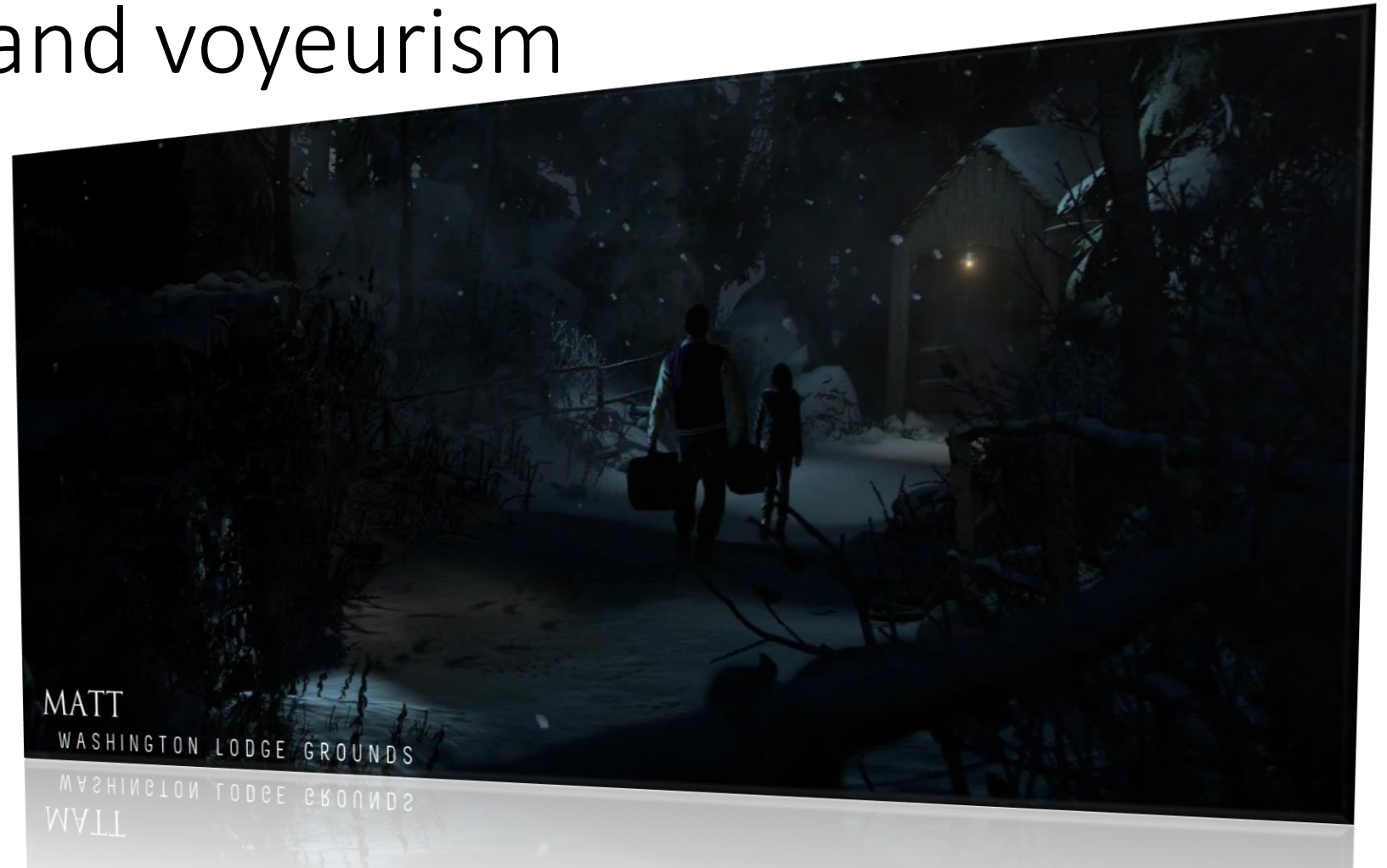


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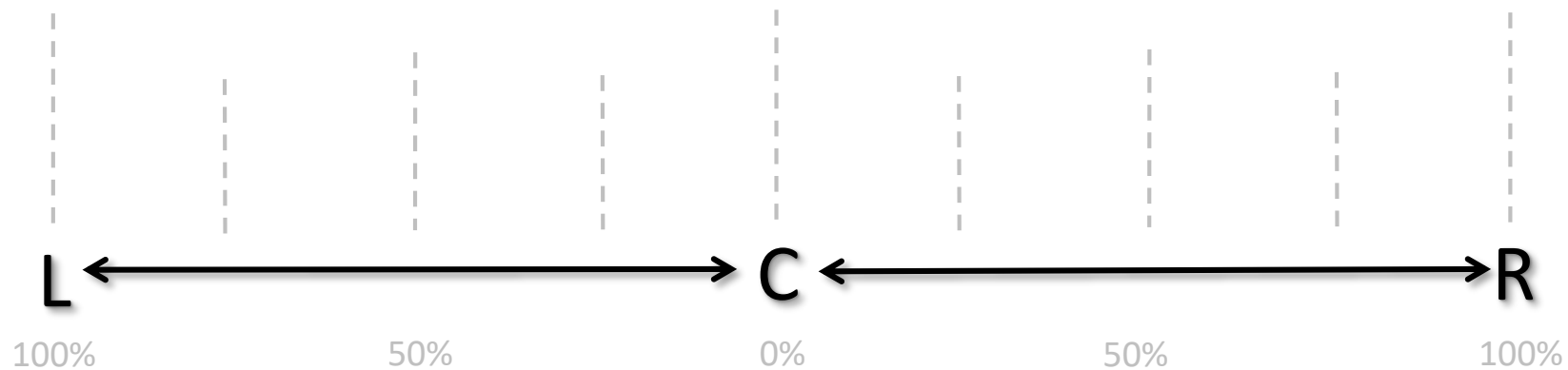




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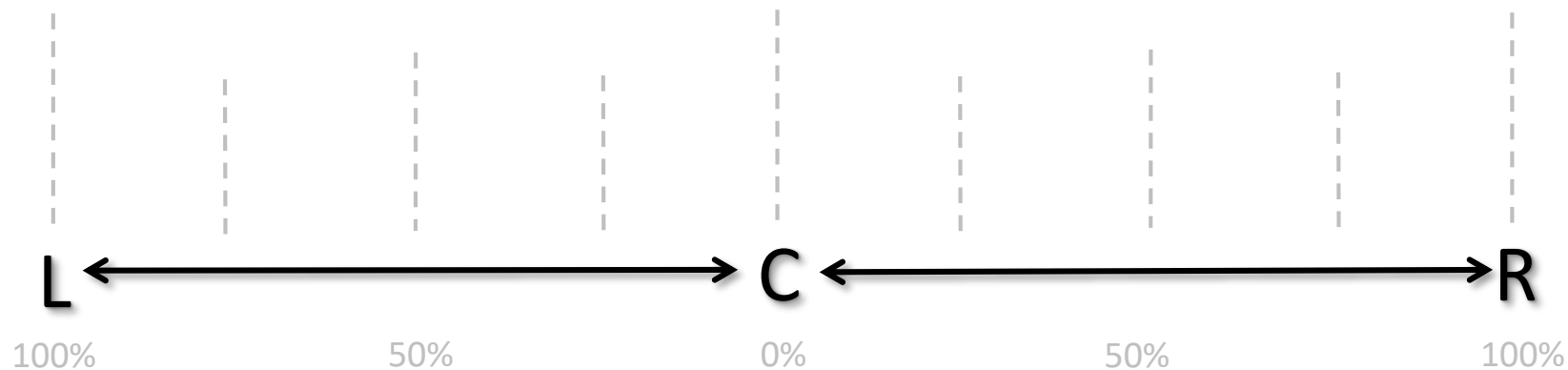


# Dialog mix – player immersion



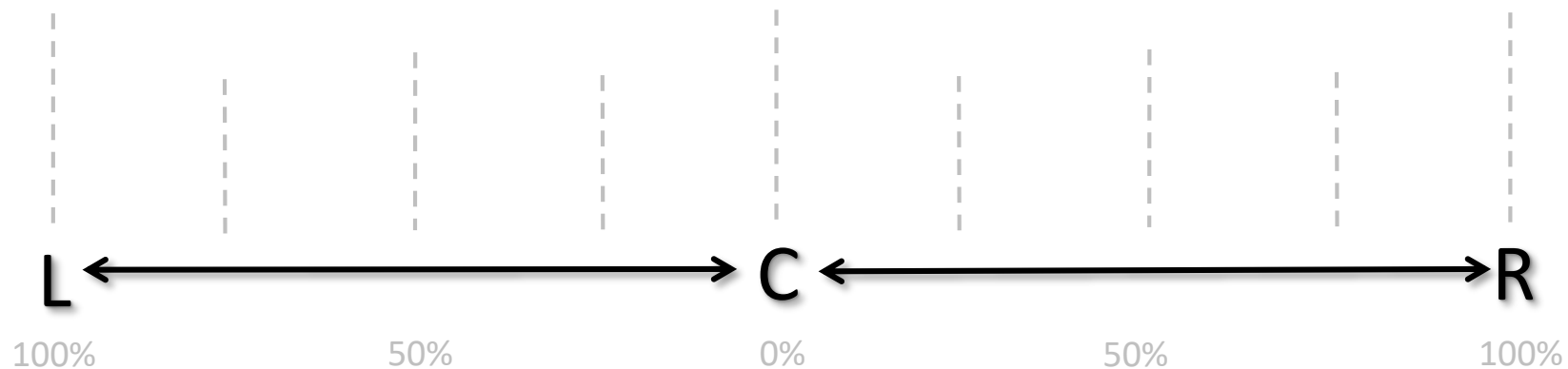
# Dialog mix – player immersion

- Cinematic 3<sup>rd</sup> person cameras
  - Lots of camera cuts
  - Harsh panning jumps



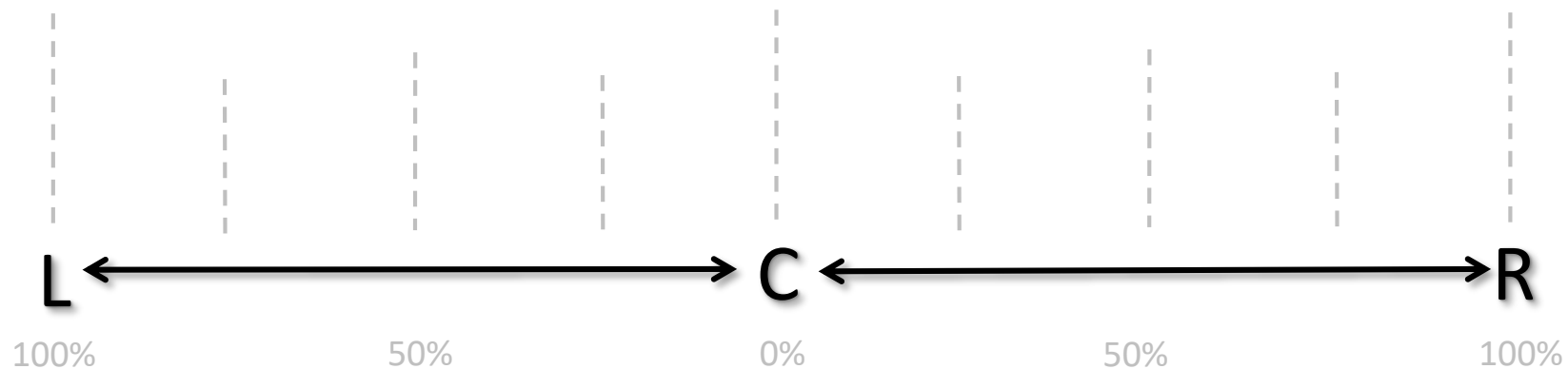
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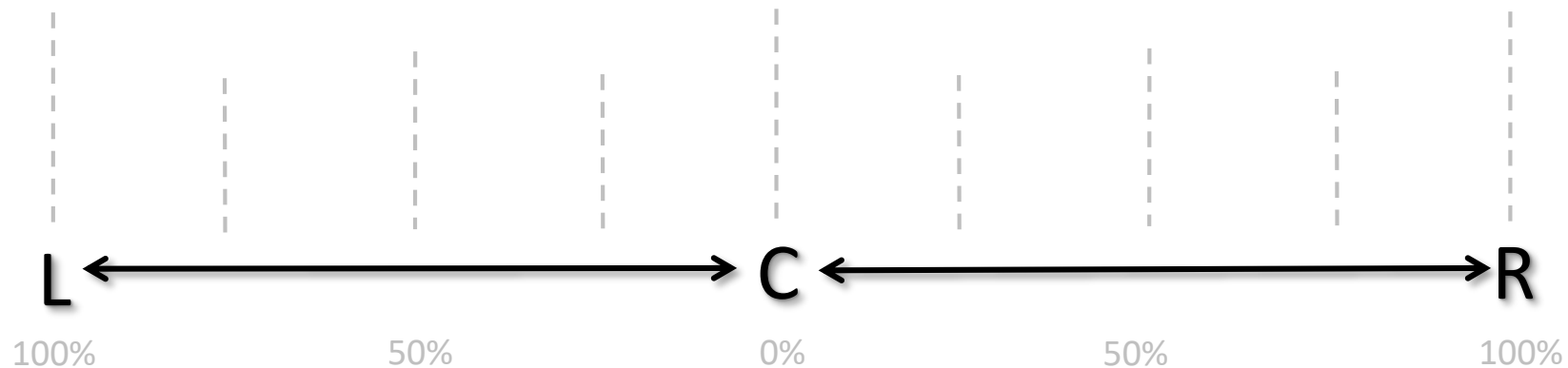
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  - Safe...
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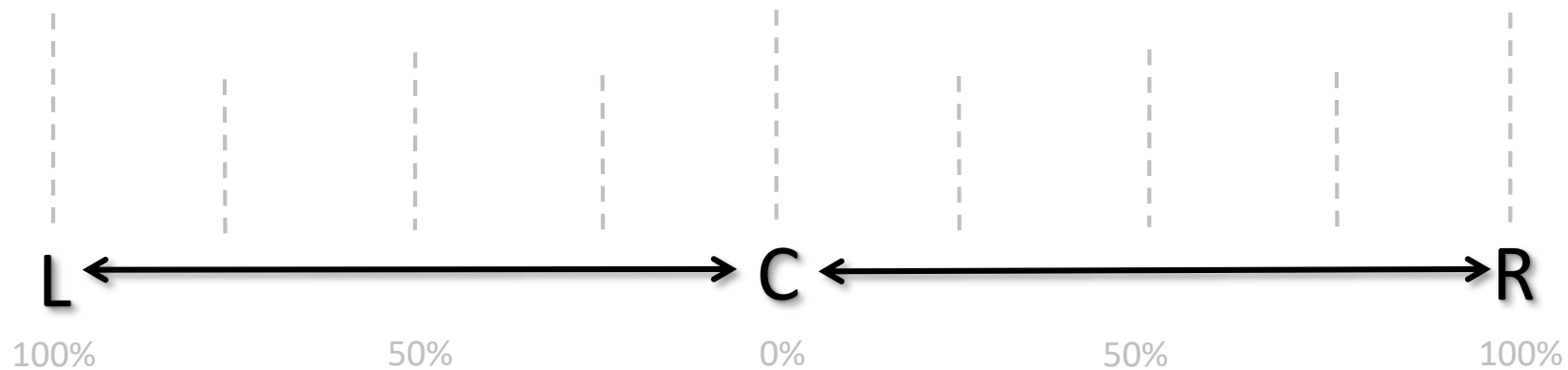
- Option 1 – centre speaker only
  - Safe...
  - ...but Lifeless
- Option 2 – full surround panning
  - Great directionality...
  - ...but Too harsh on camera cuts





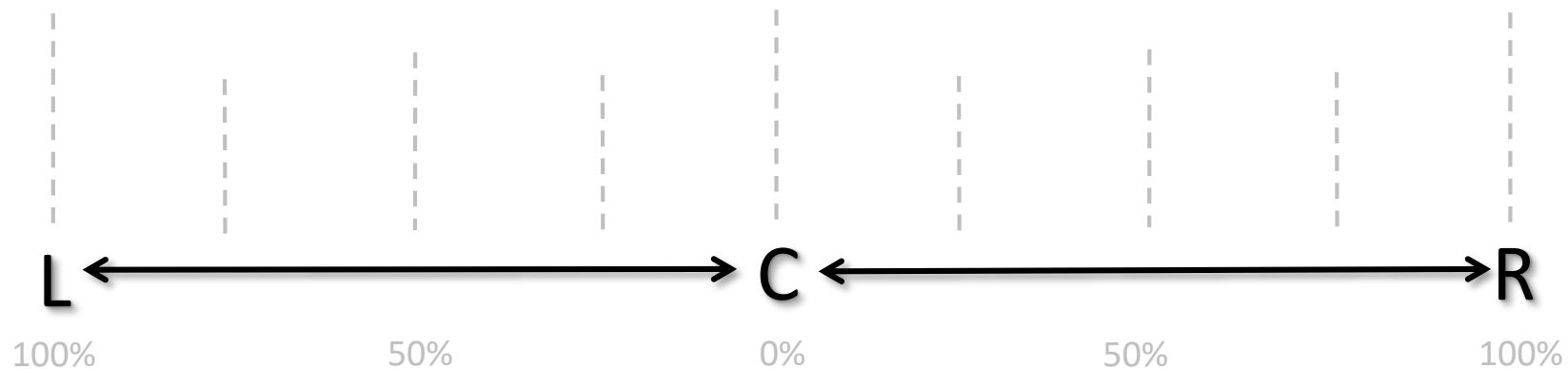
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- Solution?



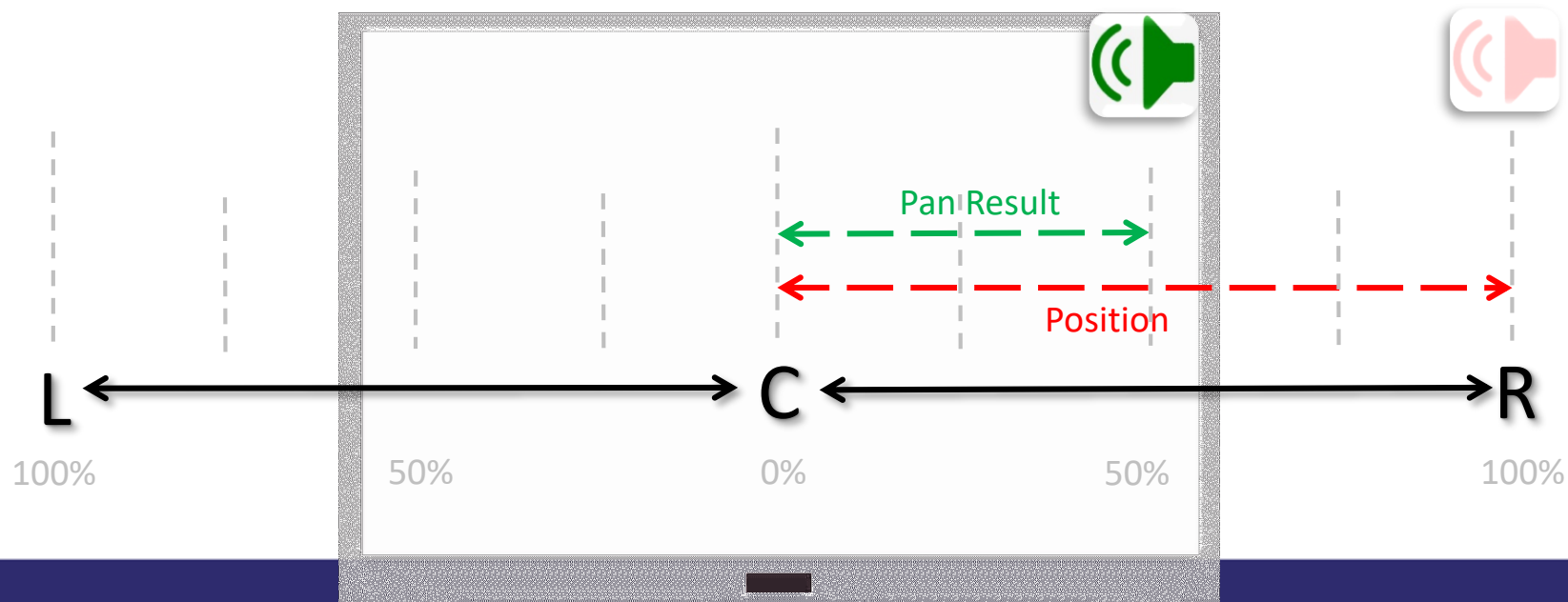
# Dialog mix – player immersion

- Solution?
  - Sweet spot between the two options
  - 50% centre biased panning



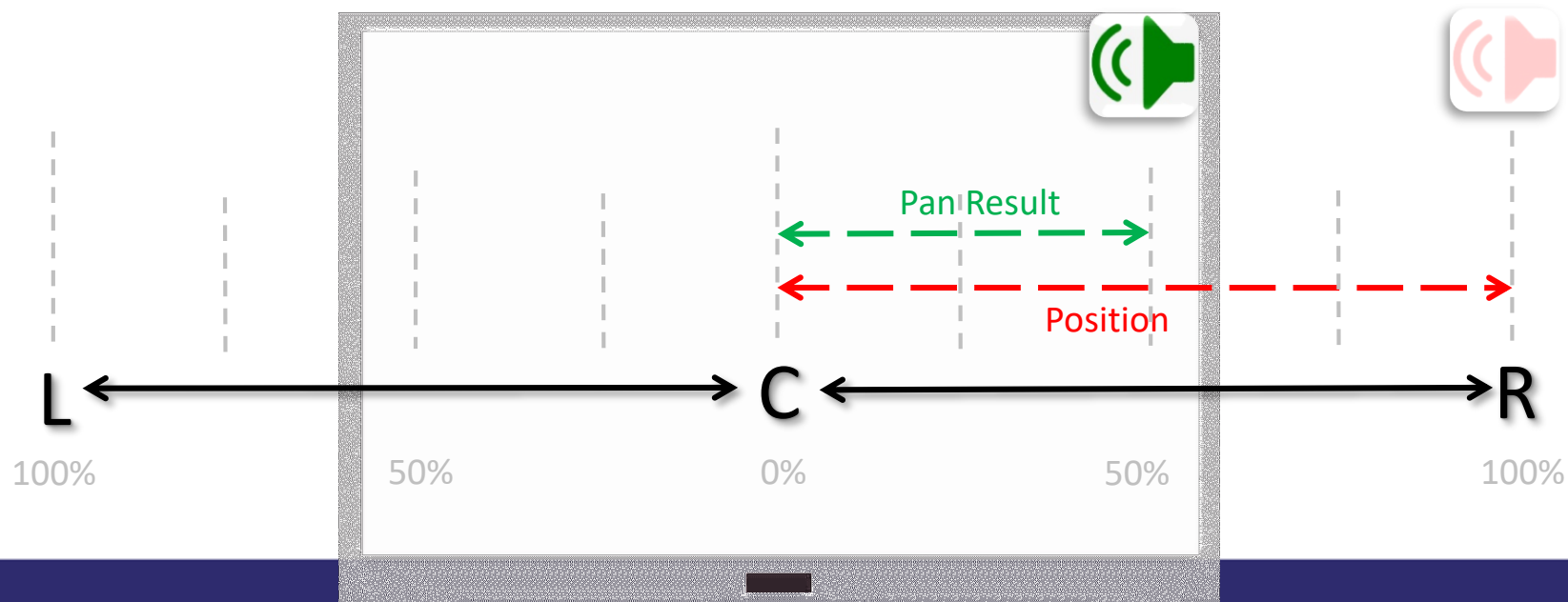
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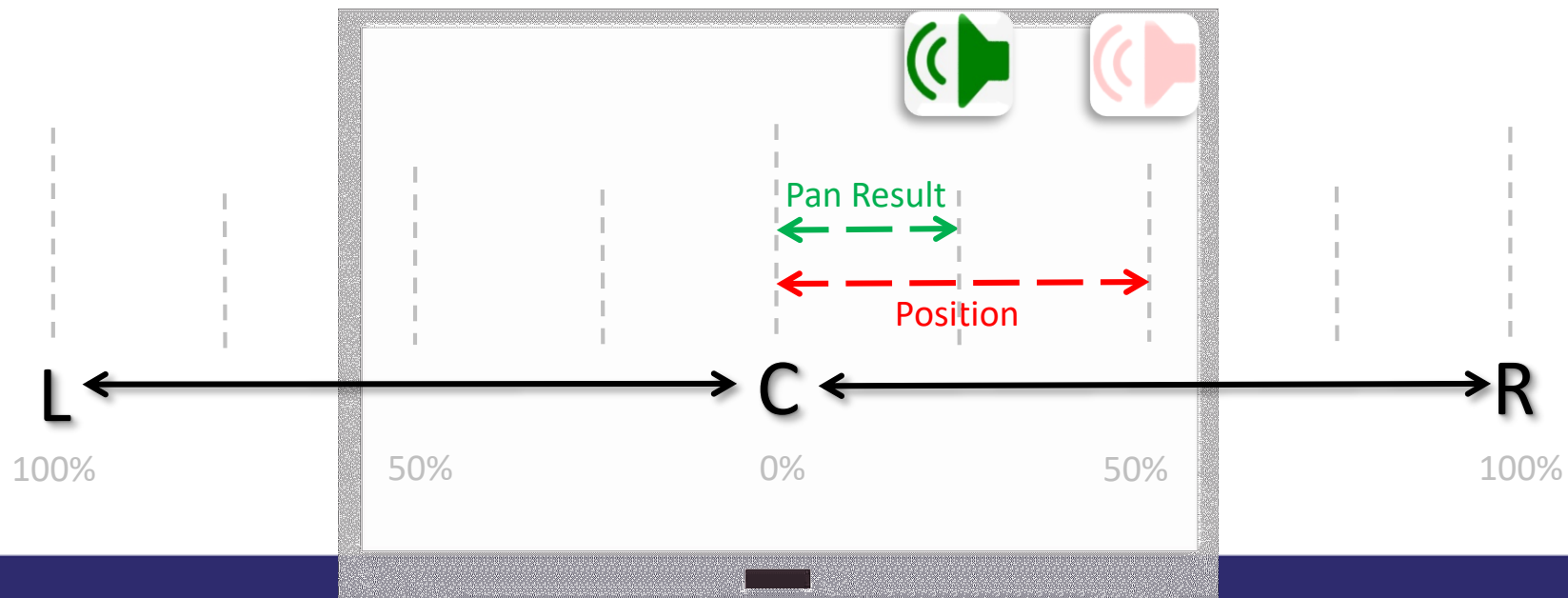
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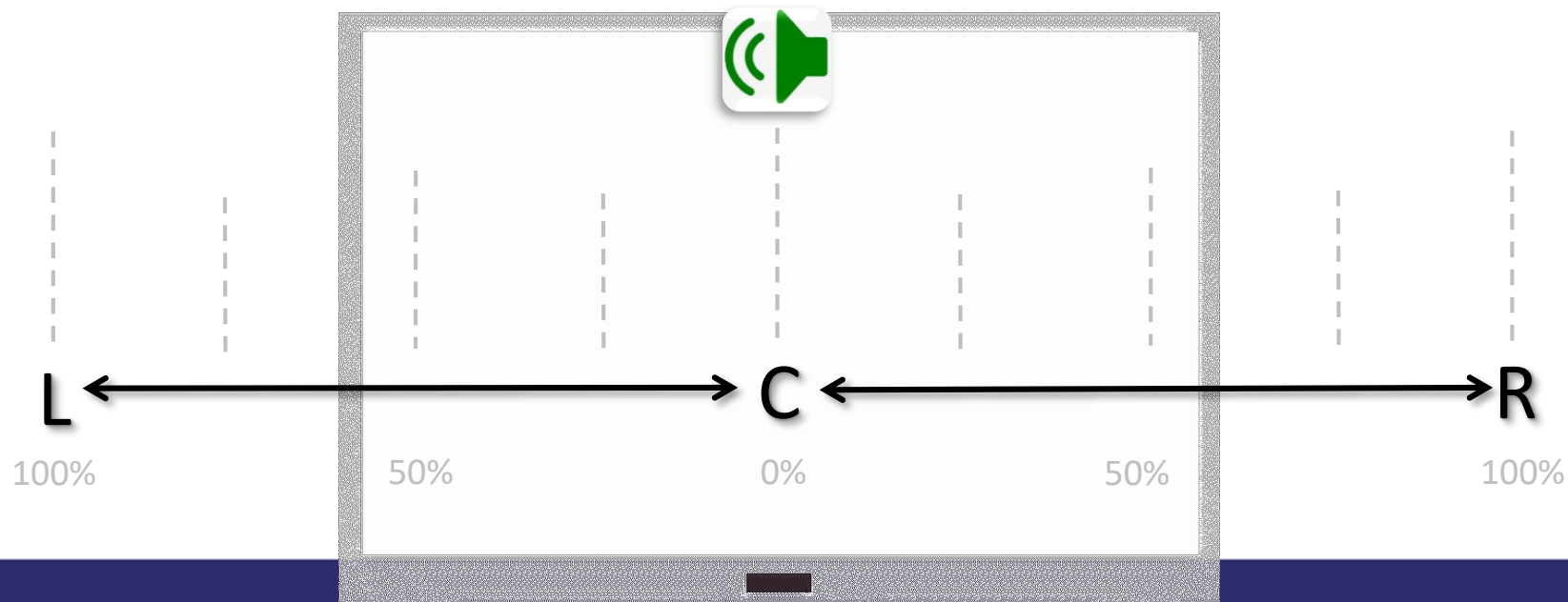
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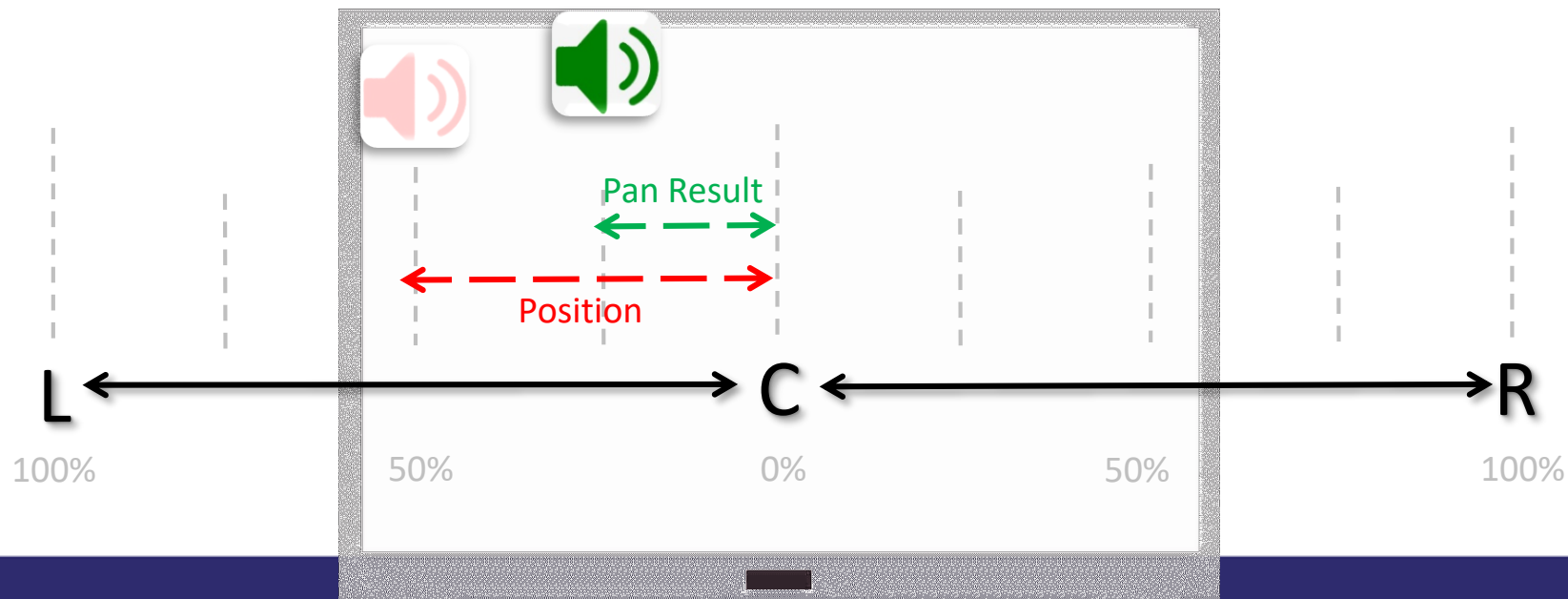
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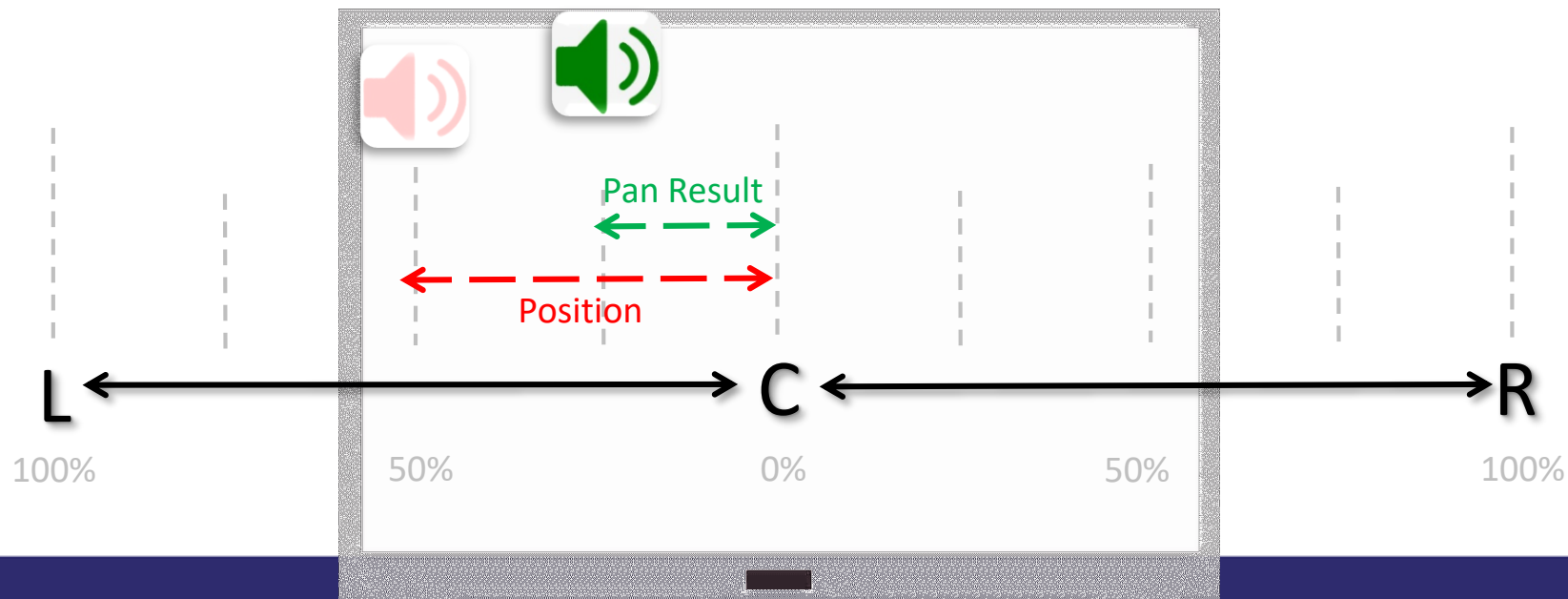
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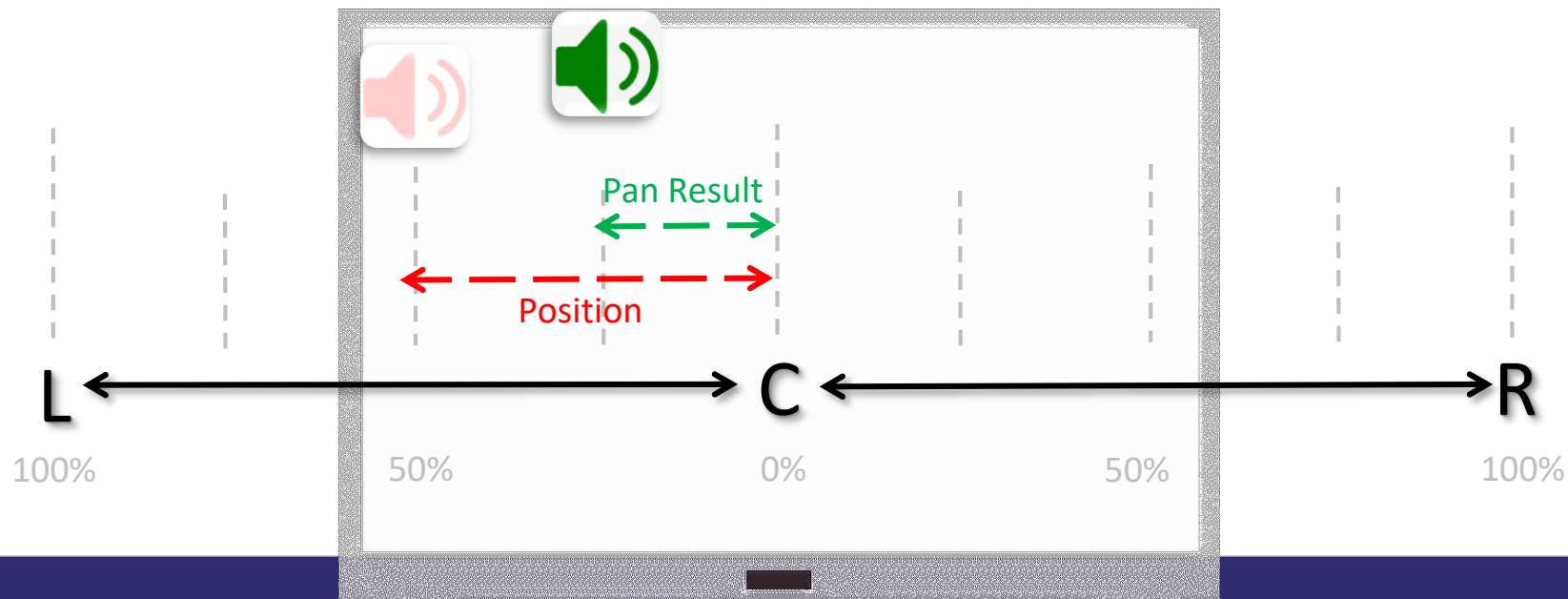
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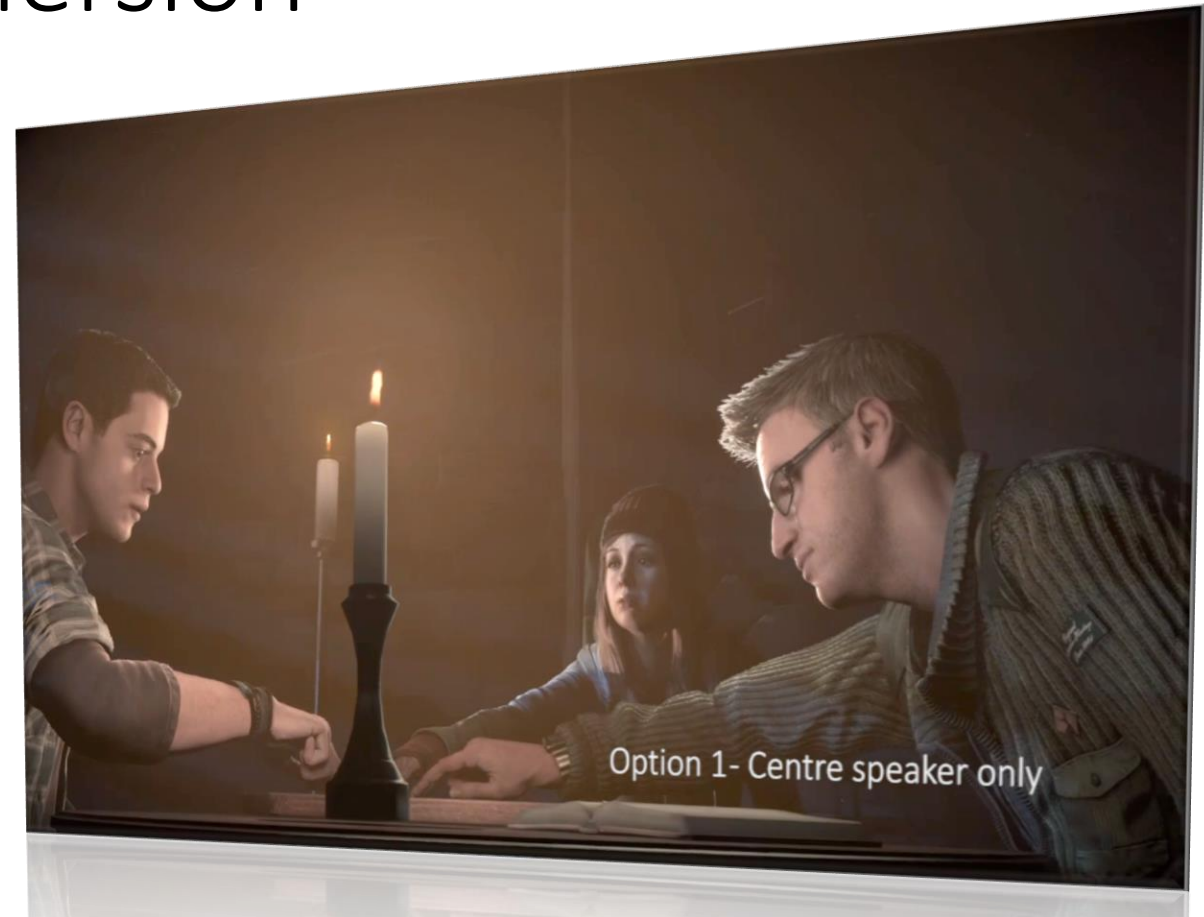
# Dialog mix – player immersion

- Player experience
  - Removed jarring pan / attenuation jumps
  - Kept realism / voyeurism / immersion



# Dialog mix – player immersion

- Clip 1:
  - Centre only
- Clip 2:
  - Full surround positioning
- Clip 3:
  - 50% centre biased



# Early audio involvement – storyboard phase

- Solidify audio direction
- Set expectations of Exec
- Discover challenges and opportunities
- Really helped unify the final experience



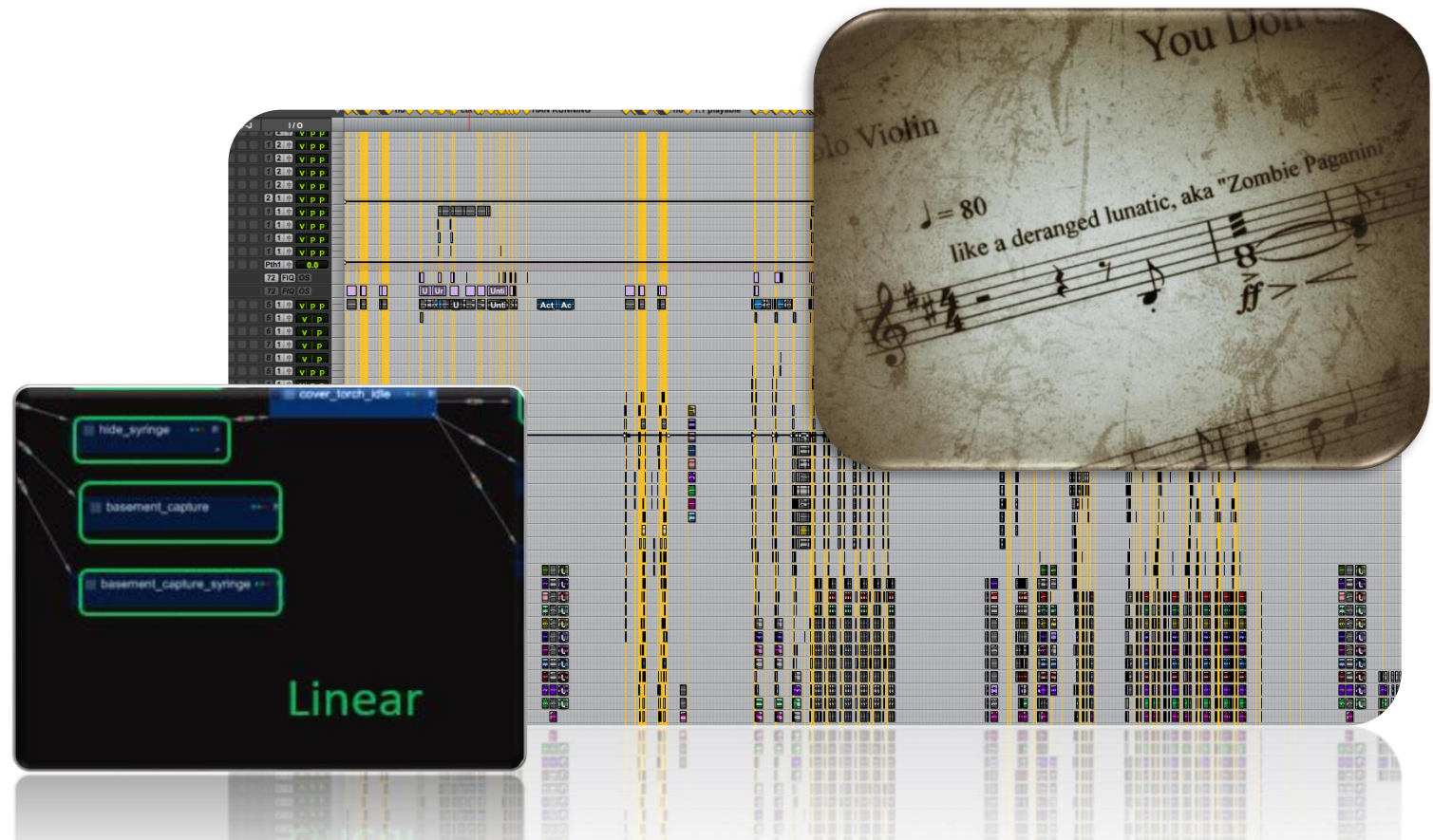
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# Music – linear techniques and engagement



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- Delivery
  - Very wide stems - 20
  - Aleatroic and thematic

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  - Create new cues
- Subverting a love theme:
  - Chris and Ashley theme

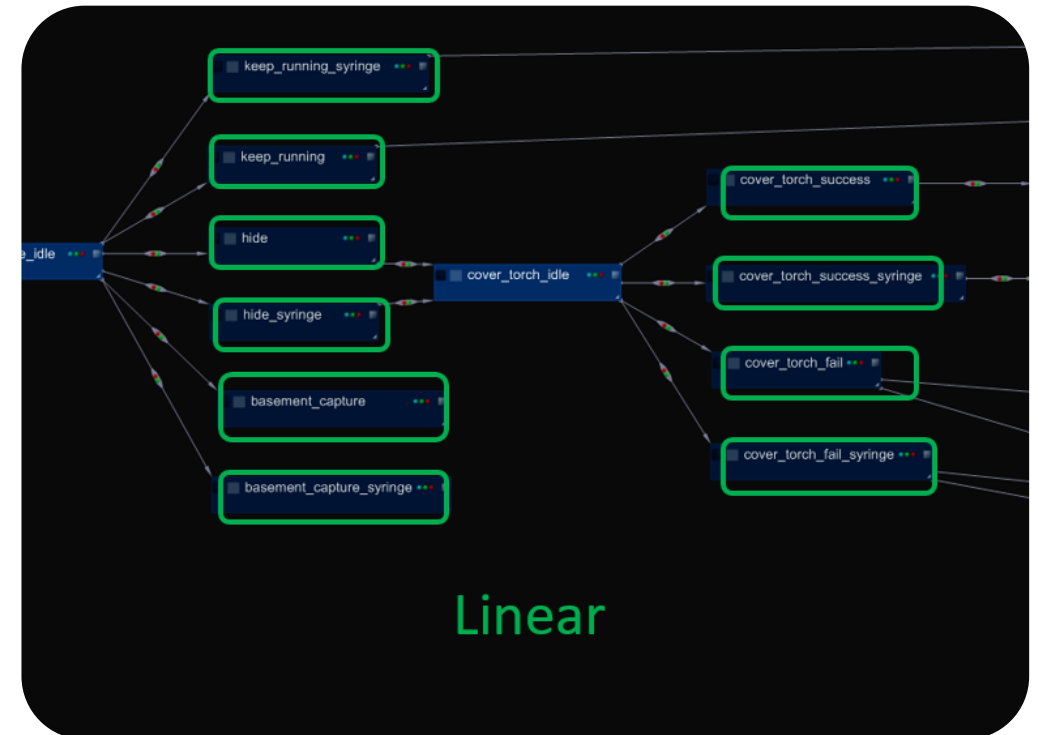


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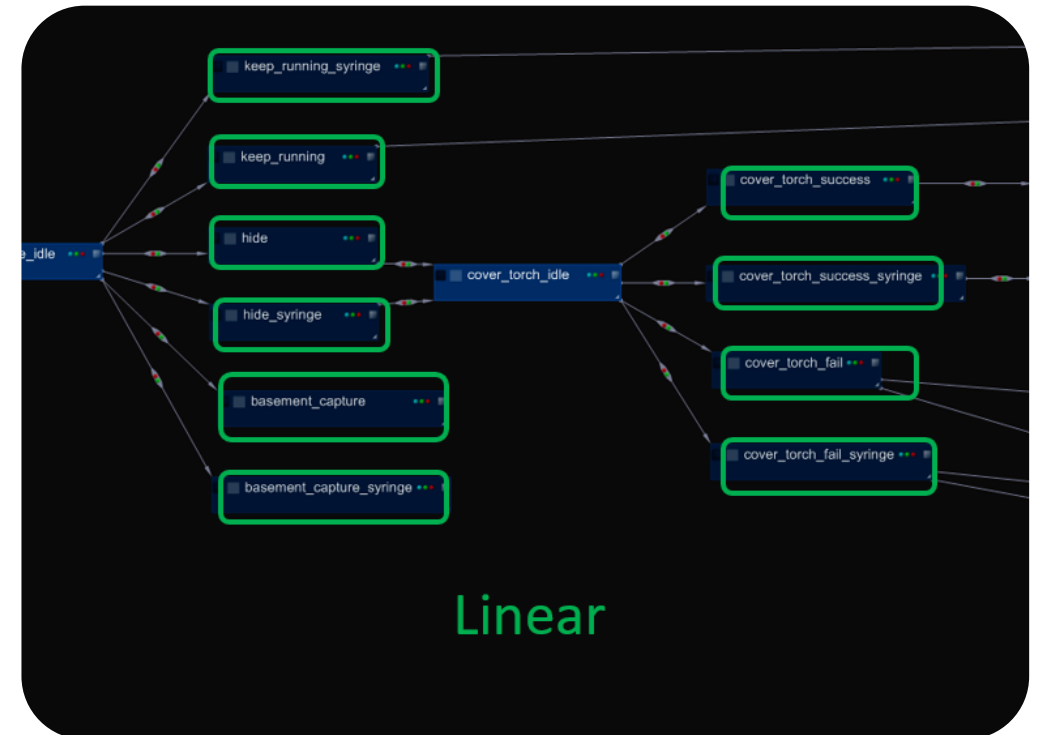


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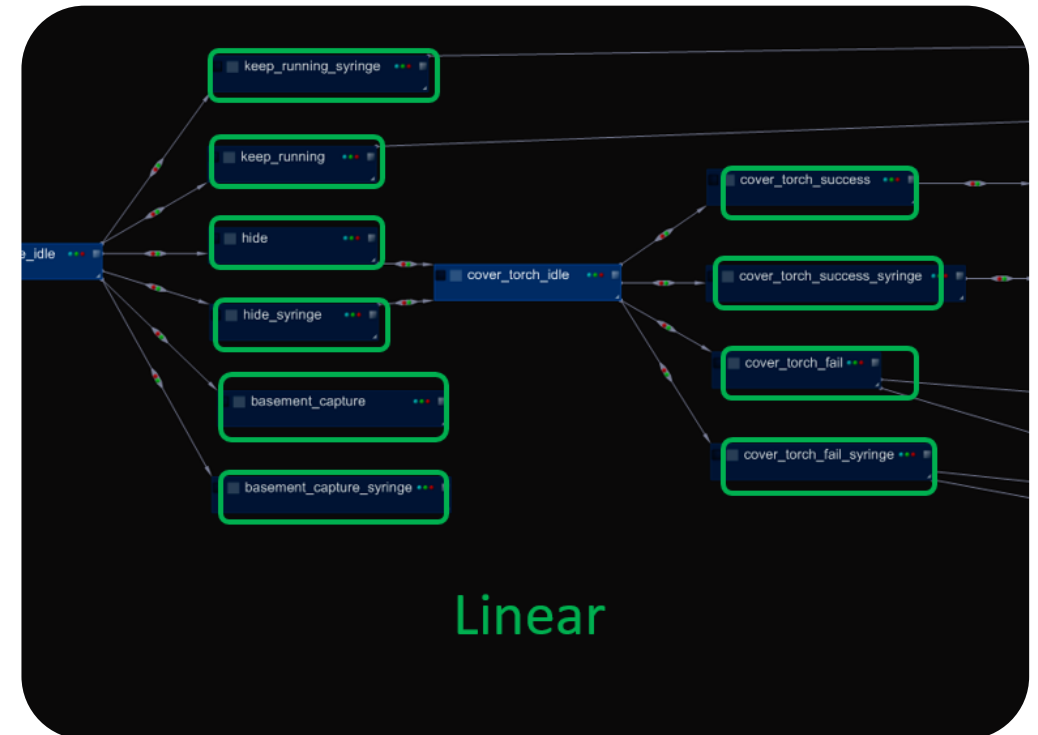
- Avoid:
  - Randomisation
  - Repetition
- NOT 'stems and states'



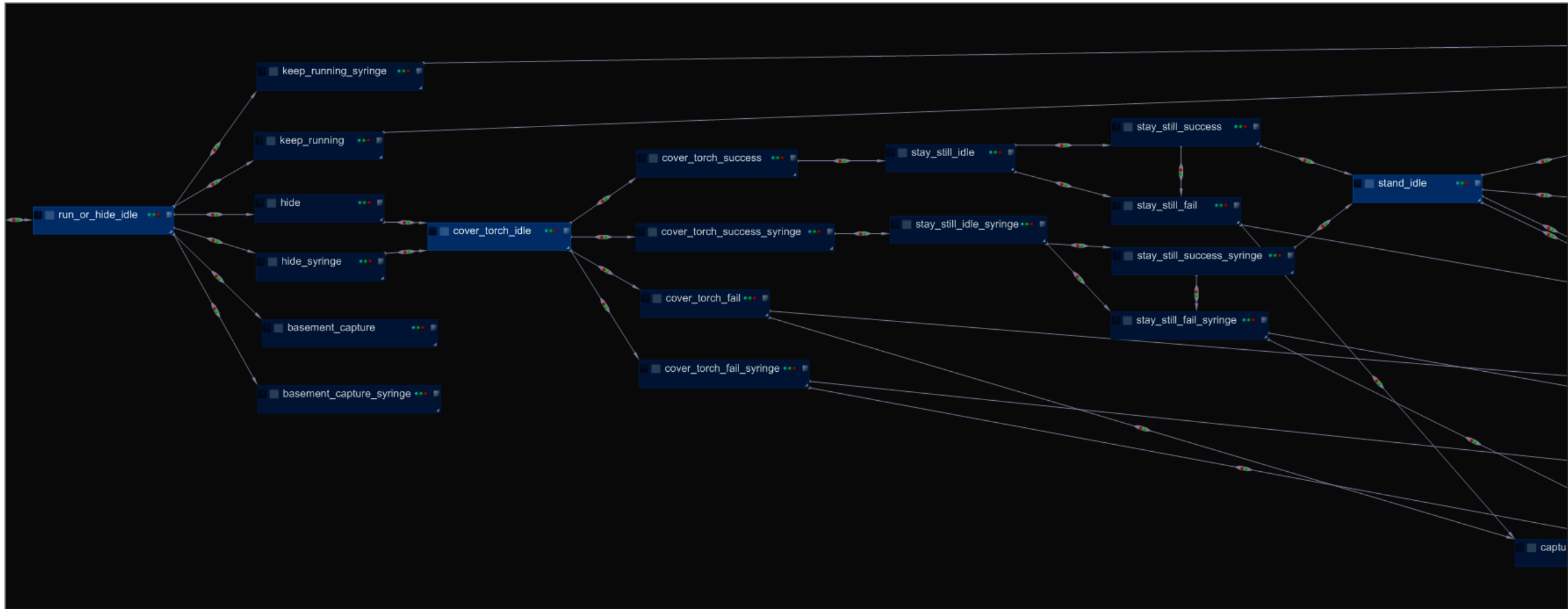


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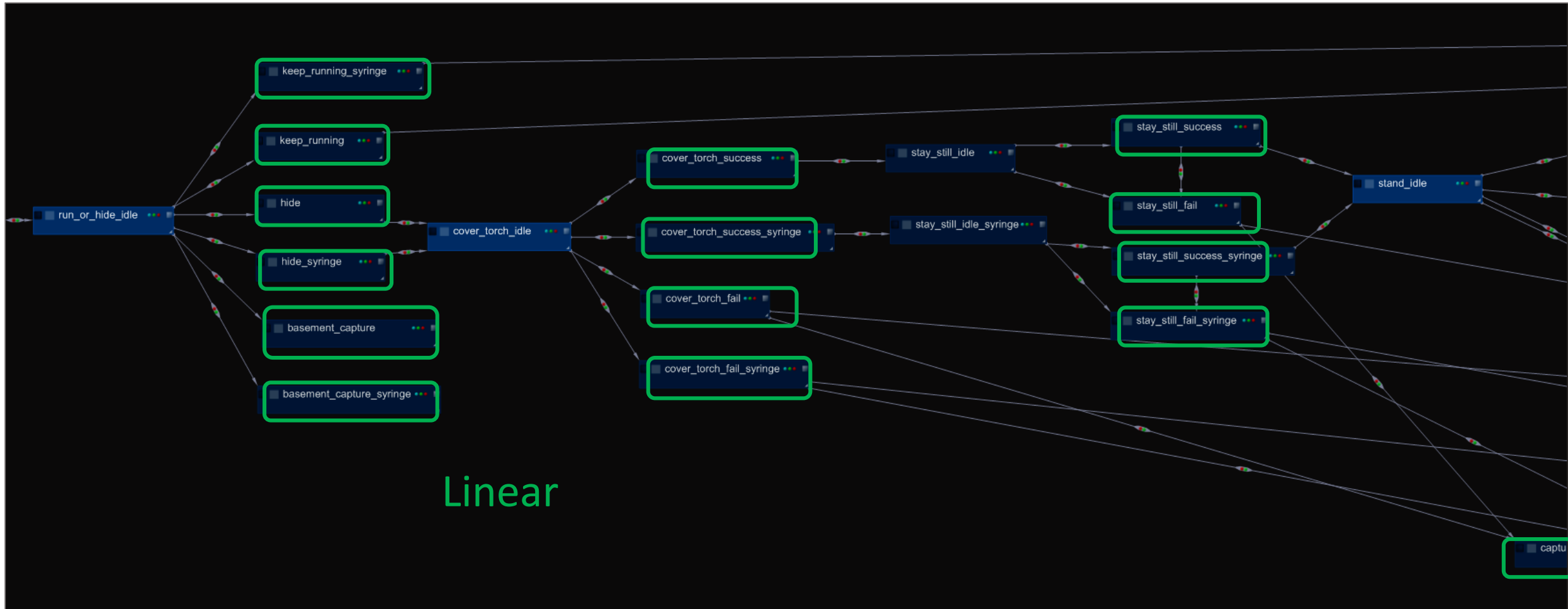
- Linear - film editing
  - Complete musical control
  - Exact emotional nuance
  - Subtle thematic progressions - arc



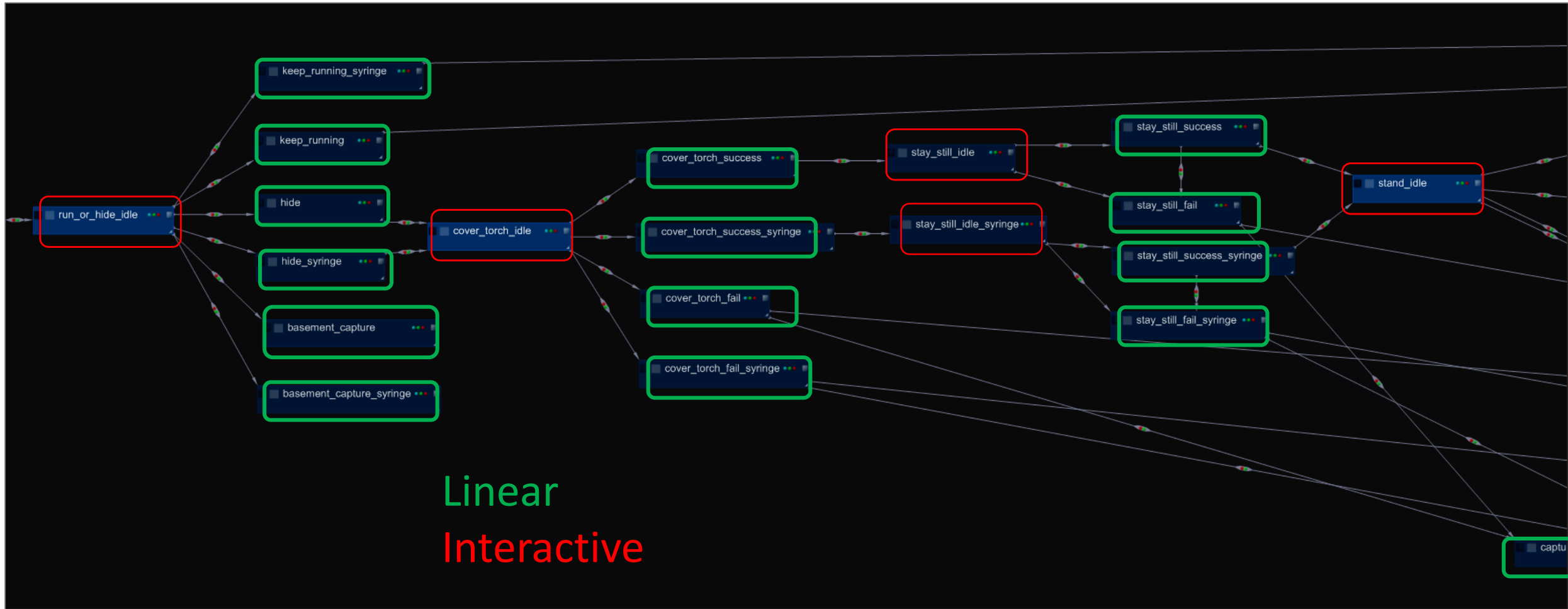
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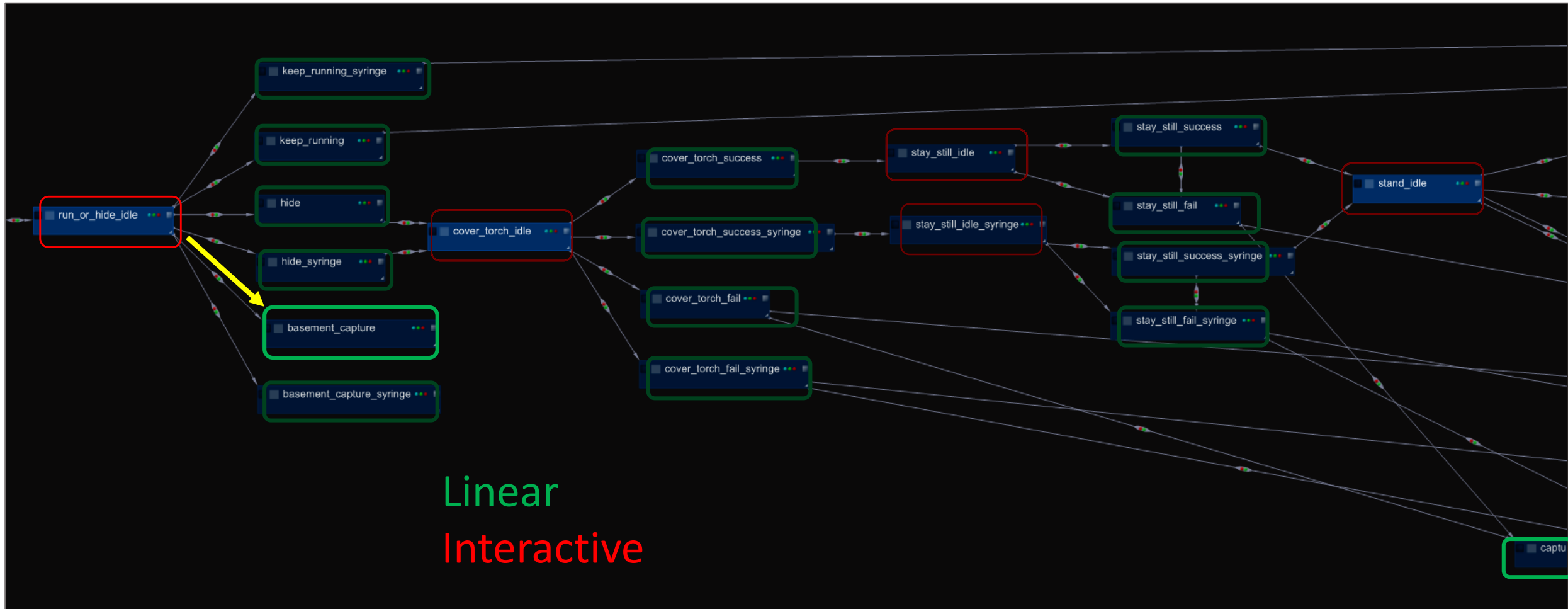
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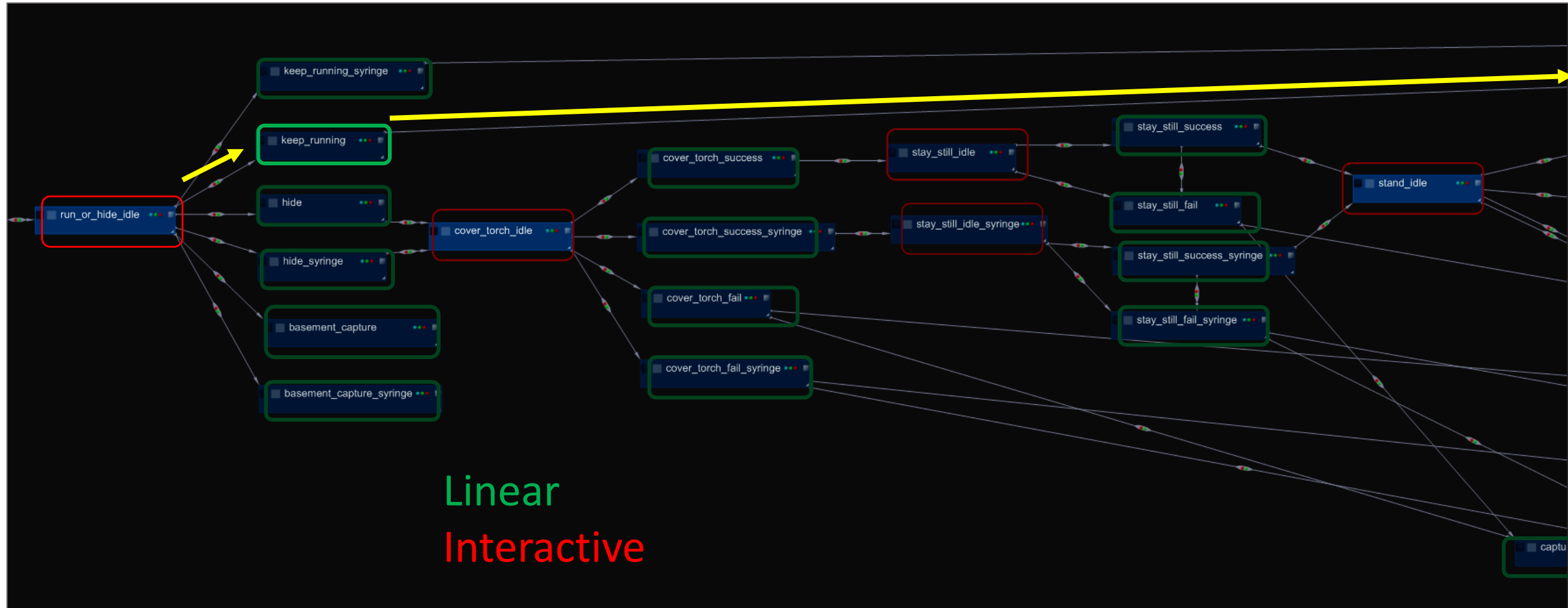
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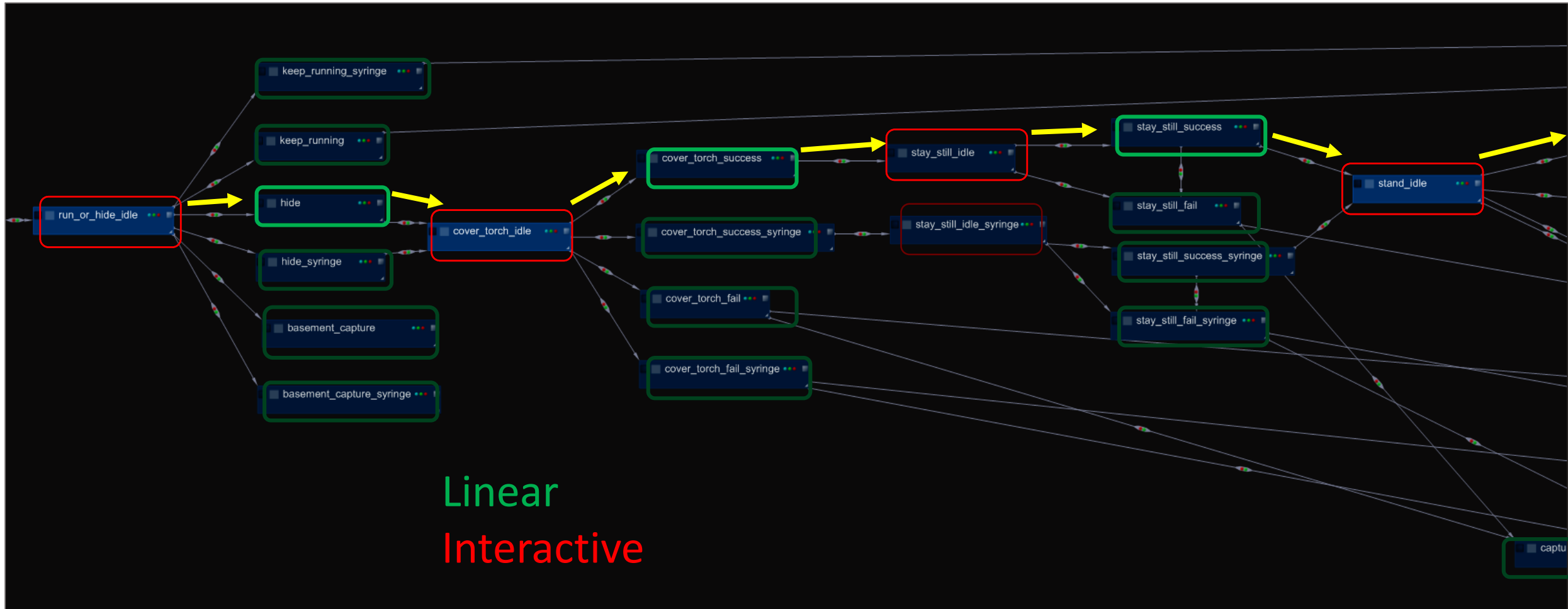


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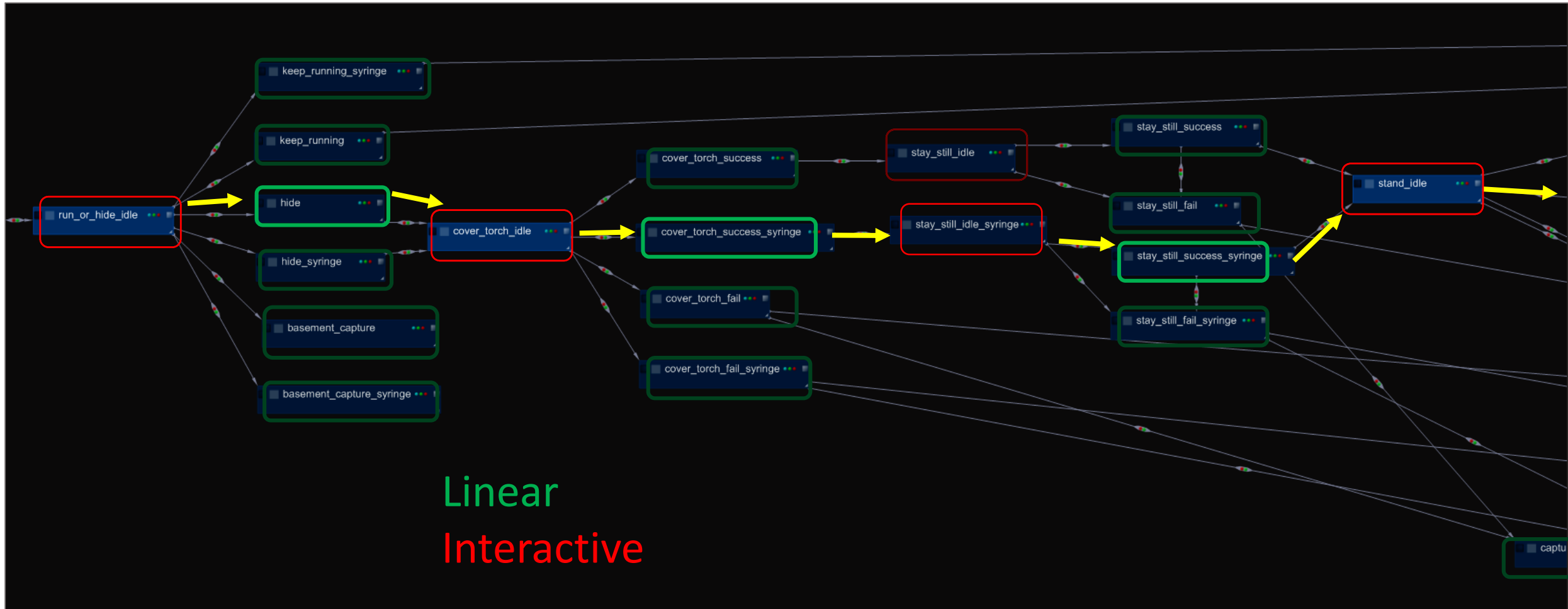




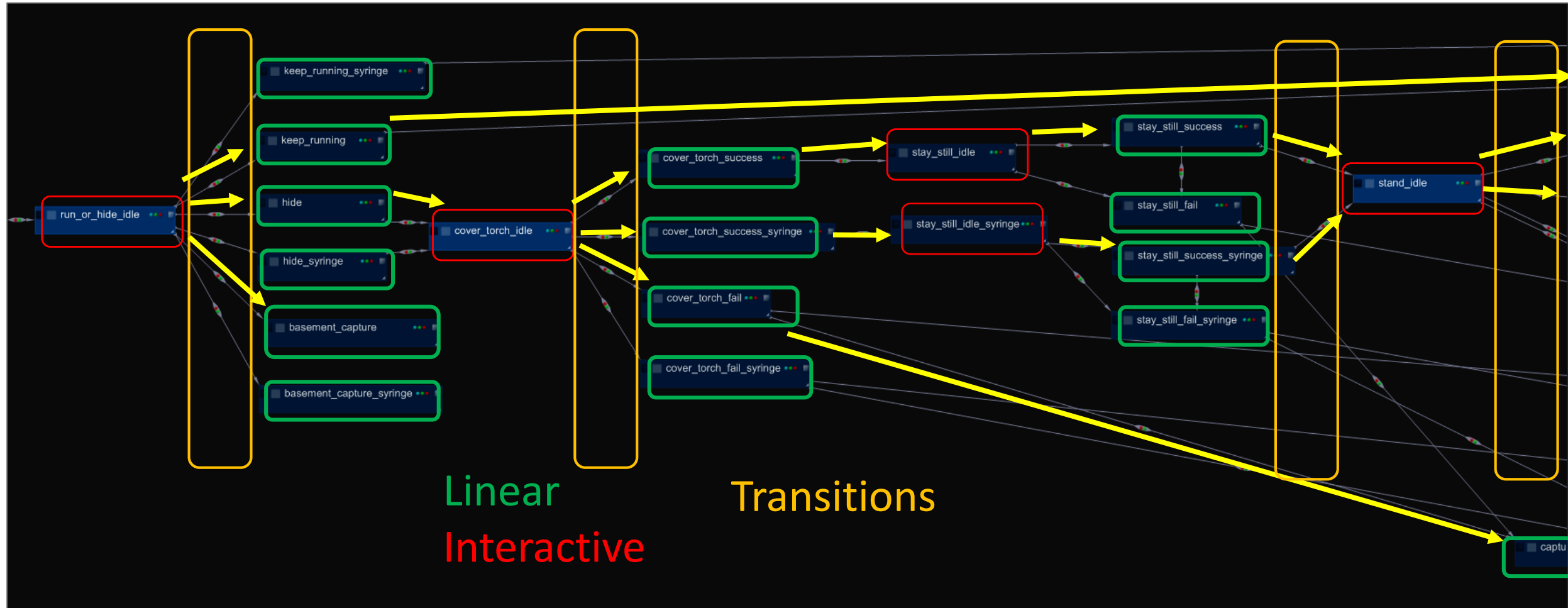
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    - On the beat / bar
    - Custom cues
    - Transition segments

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  - Frame accurate music change:
    - Remove the rhythmical elements
    - Pre-empt the precise moment
    - Maintain immersion

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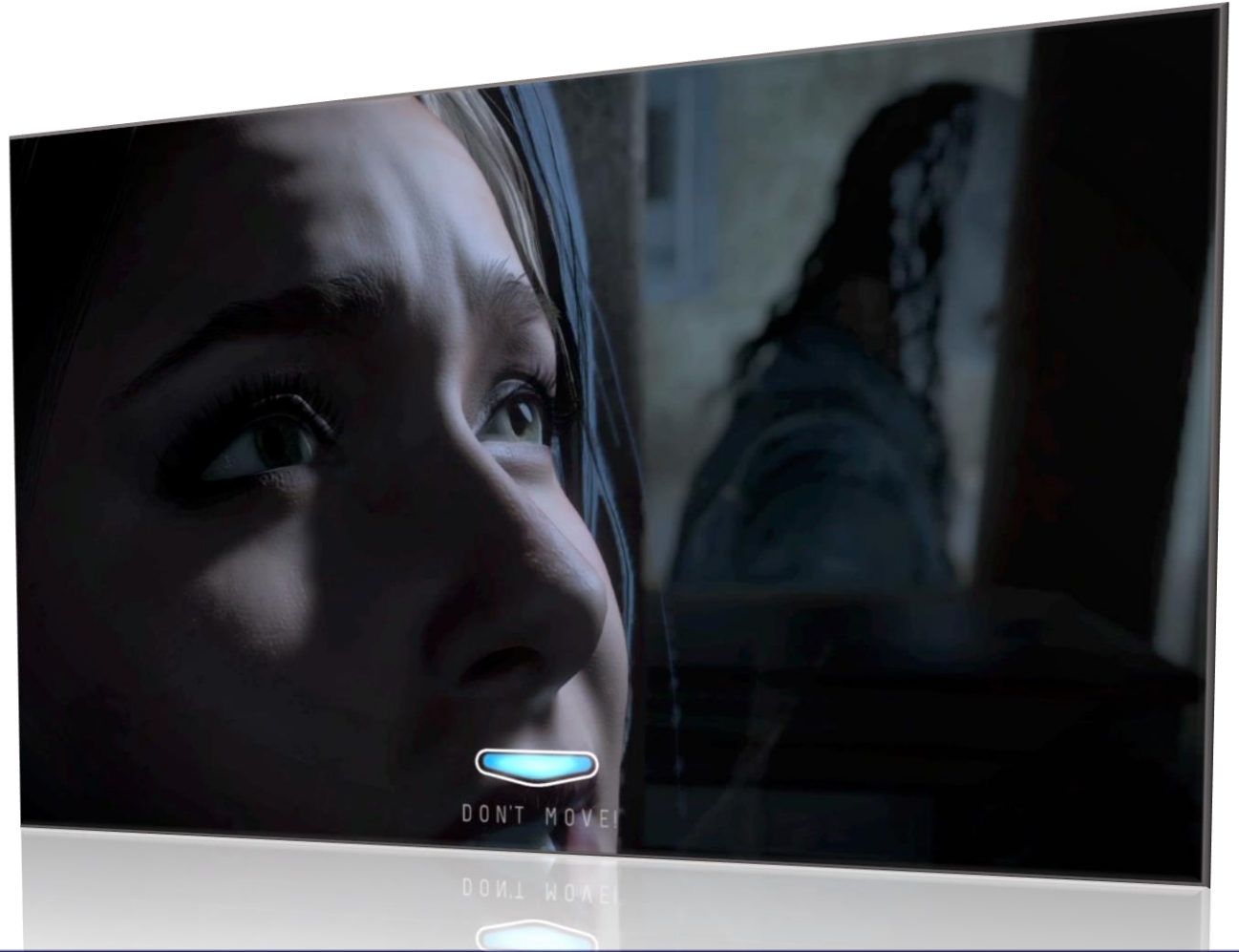
- 
- Walk into your fear:
    - Riser to point RTPC
    - Alter non-diegetic music stem
      - By in game player character position

# Music – linear techniques and engagement

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- Walk into your fear:
    - Riser to point RTPC
    - Alter non-diegetic music stem
      - By in game player character position

# Music – linear techniques and engagement

- Two clips
  - Alternate paths
  - One amazing towel



# Scare tactics – patterns and expectations

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- V A R I E T Y
  - Avoid single emotional tone for too long
  - Avoid using same stings



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- V A R I E T Y
  - Avoid single emotional tone for too long
  - Avoid using same stings
- Avoid repetition
  - Players soon learn a pattern
- Play with player's expectations
  - Create confusion

# Scare tactics – patterns and expectations

- Riser to **sting**
- Riser to **nothing**
- Just a Sting
- More examples



# Summary

# Summary

- Detailed character sound -> improves intimacy
- Attenuations -> helps voyeurism and intimacy
- Emotional nuance -> improves engagement
- Subvert player expectations

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Liferebooted  
Member

It has the world's most amazing towel...

# Summary

- Detailed character sound -> improves intimacy
  - Attenuations -> help voyeurism and intimacy
  - Emotional nuance -> improved engagement
  - Subvert player expectations
- 
- Create an engaging experience



Thank you

Any questions

Links:

@SuperMGames

[www.supermassivegames.com](http://www.supermassivegames.com)

[www.linkedin.com/in/barneypratt/](http://www.linkedin.com/in/barneypratt/)

Please fill out the GDC eval forms