MOONCRASH

Resetting The Immersive Simulation

Rich Wilson

Level Design Lead

Arkane Austin

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MOTIVATION
TO EVOLVE

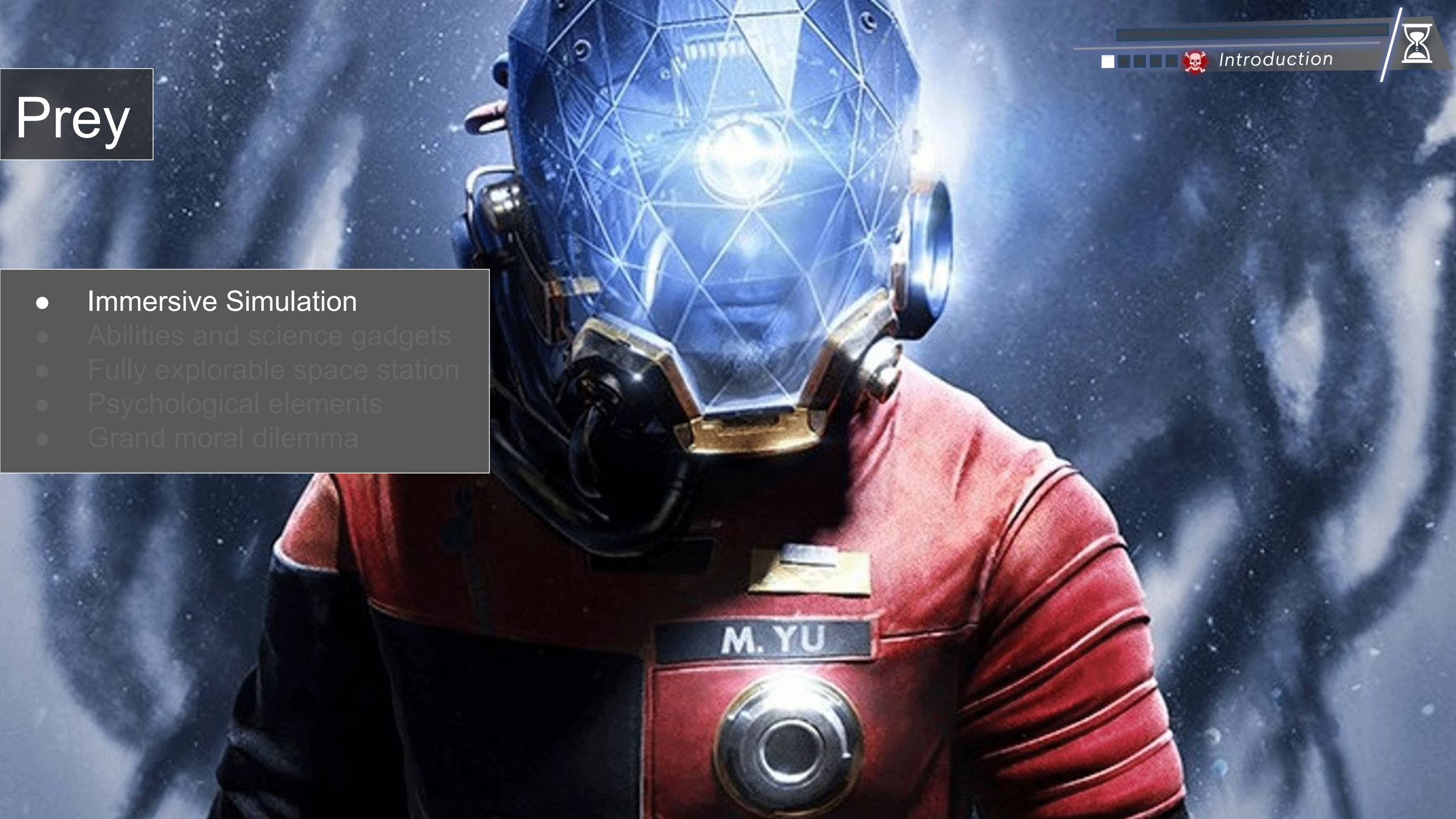
PRESERVATION
OF CORE VALUES

ADAPTATION
TO NEW PROBLEMS

First, a brief digression...

Prey

- Immersive Simulation
- Abilities and science gadgets
- Fully explorable space station
- Psychological elements
- Grand moral dilemma



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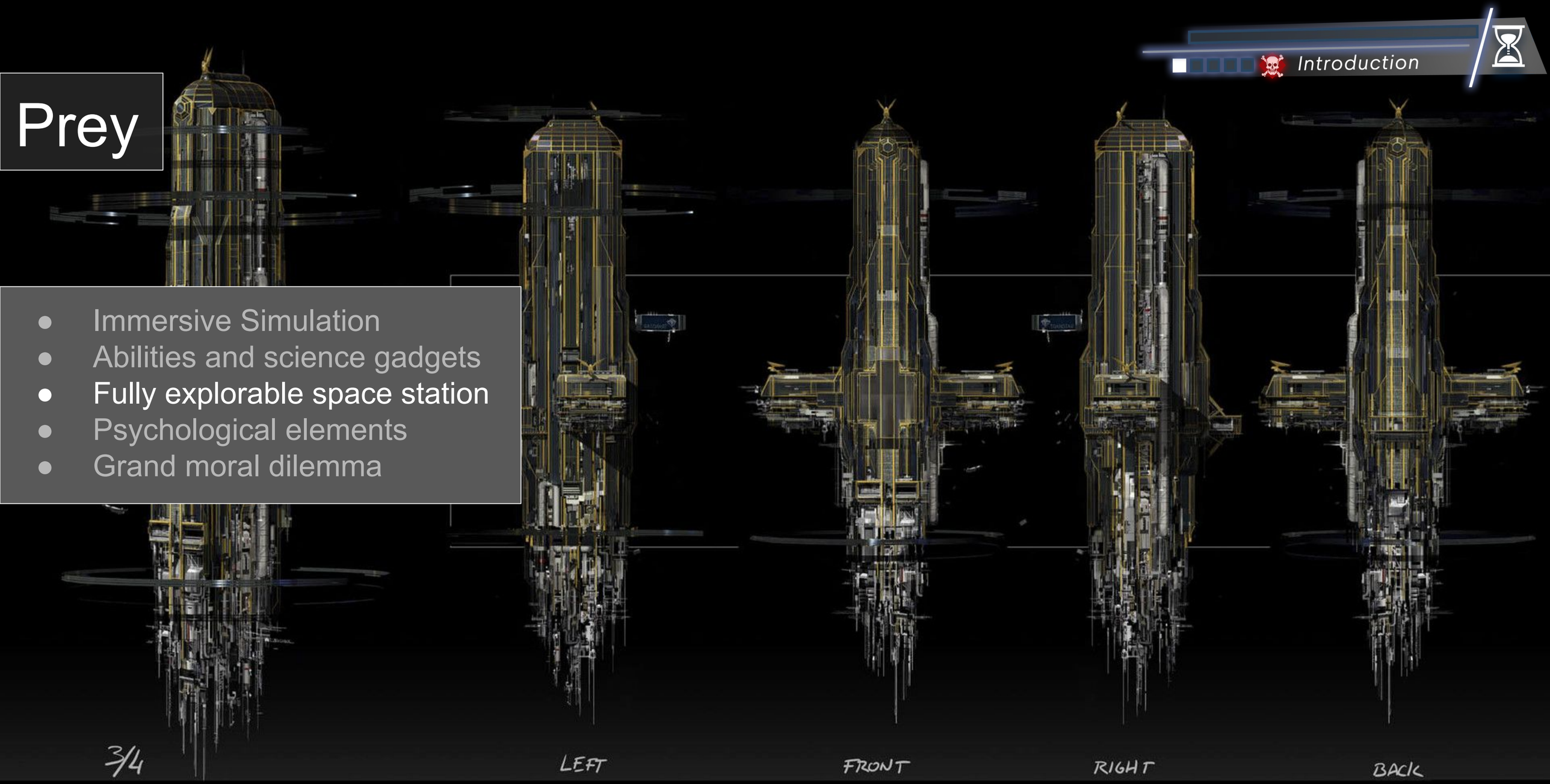

PREY

ARKANE STUDIOS Bethesda

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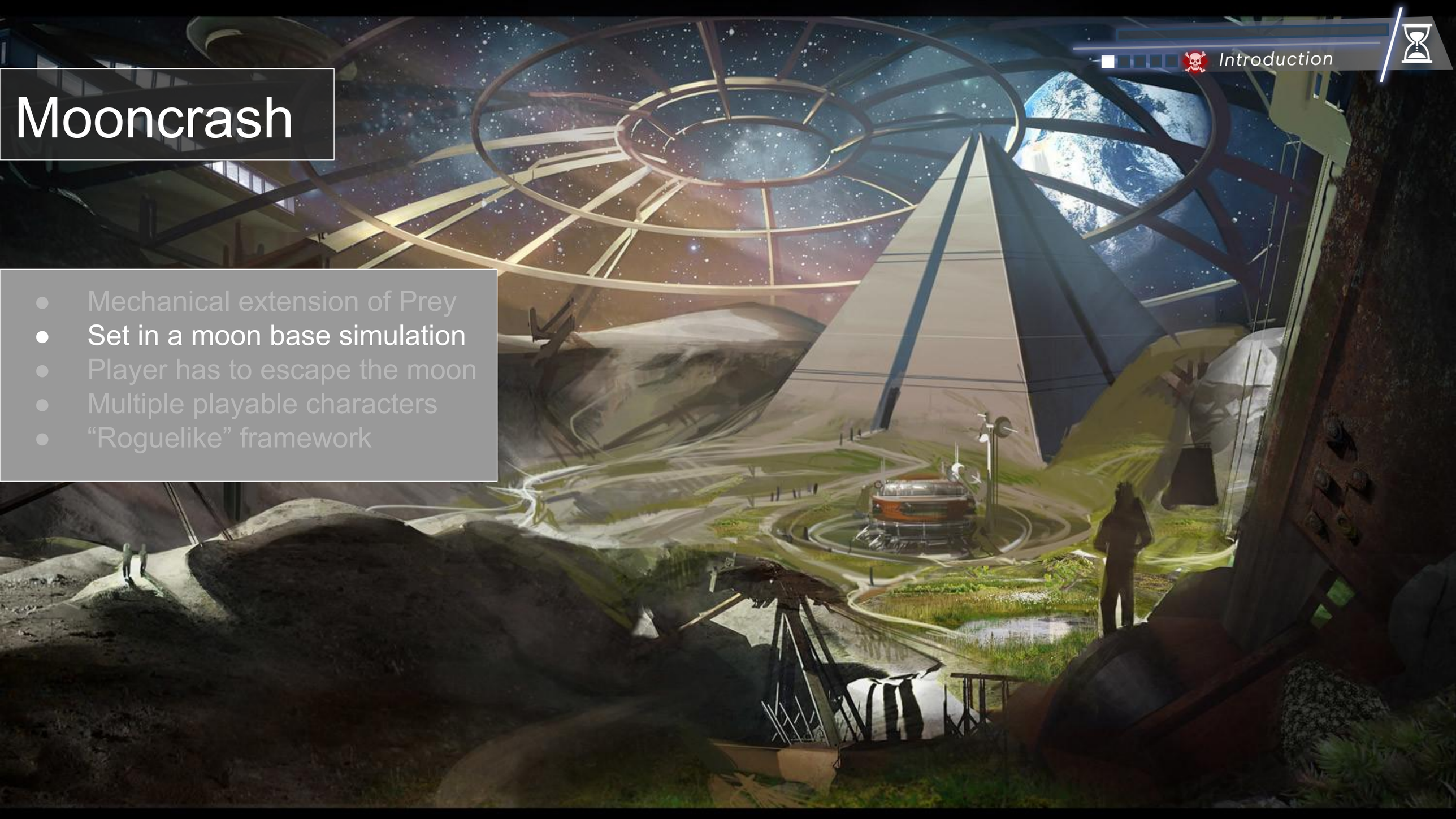
Mooncrash

- Mechanical extension of Prey
- Set in a moon base simulation
- Player has to escape the moon
- Multiple playable characters
- “Roguelike” framework

Mooncrash



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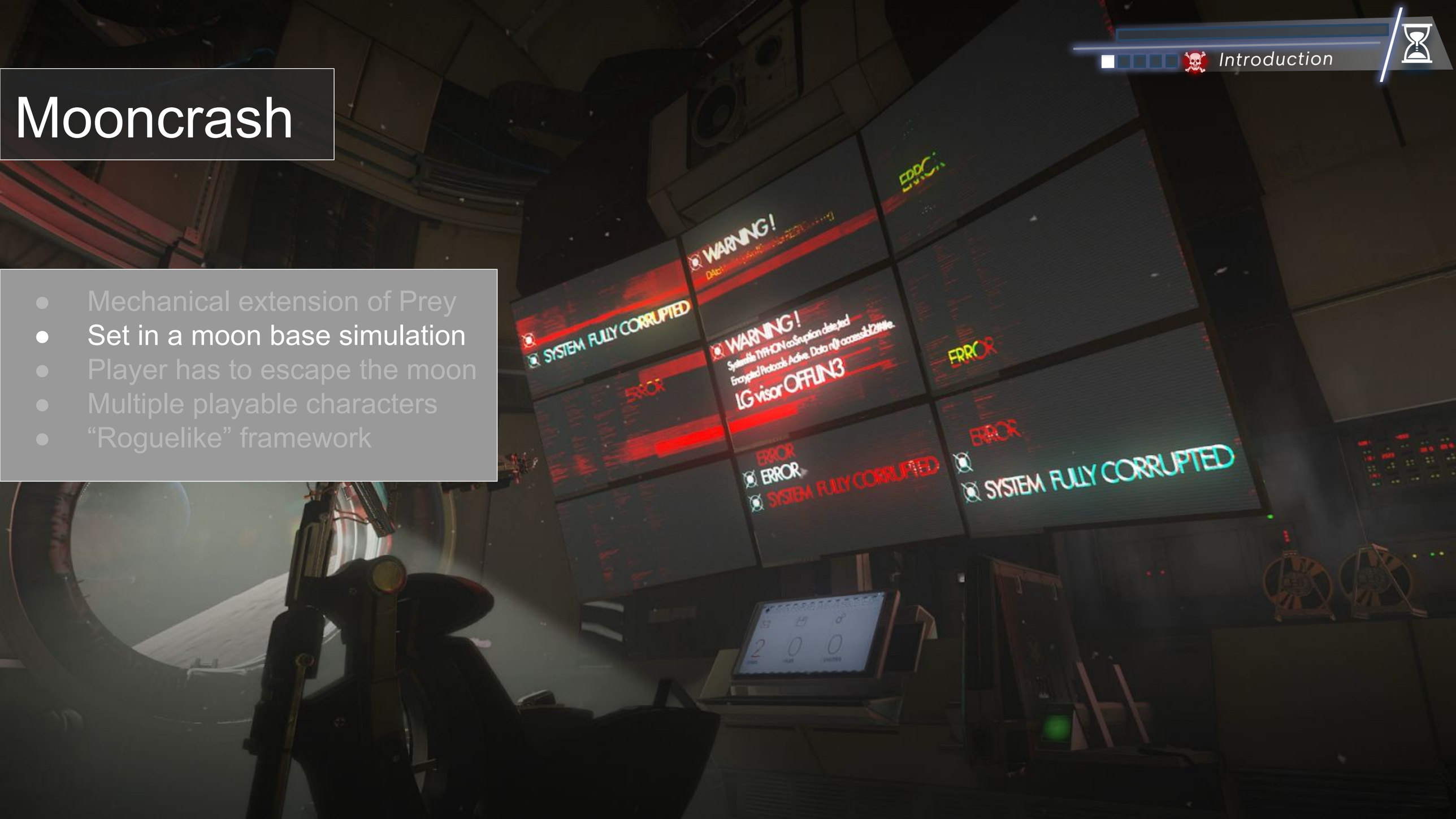

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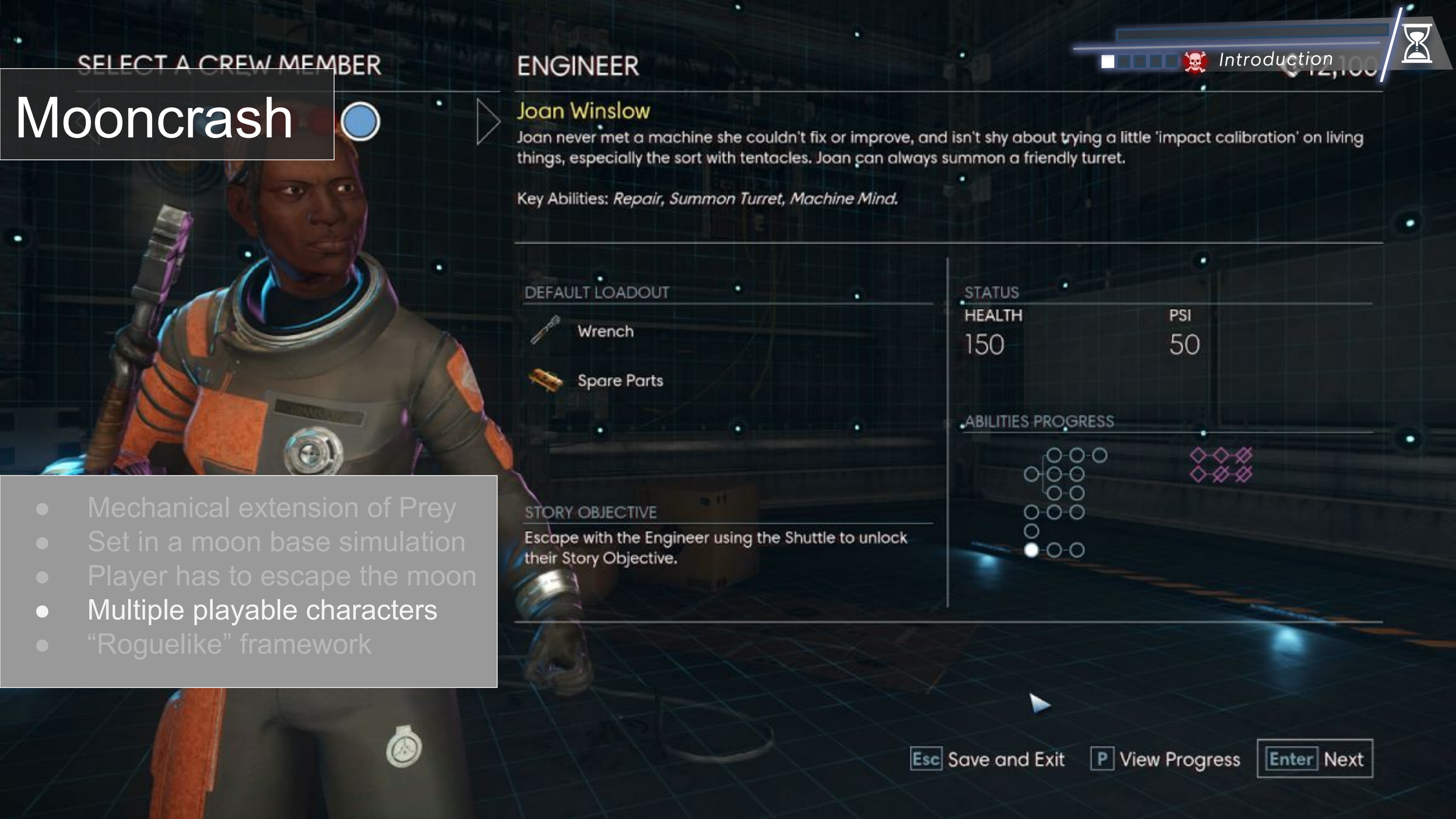

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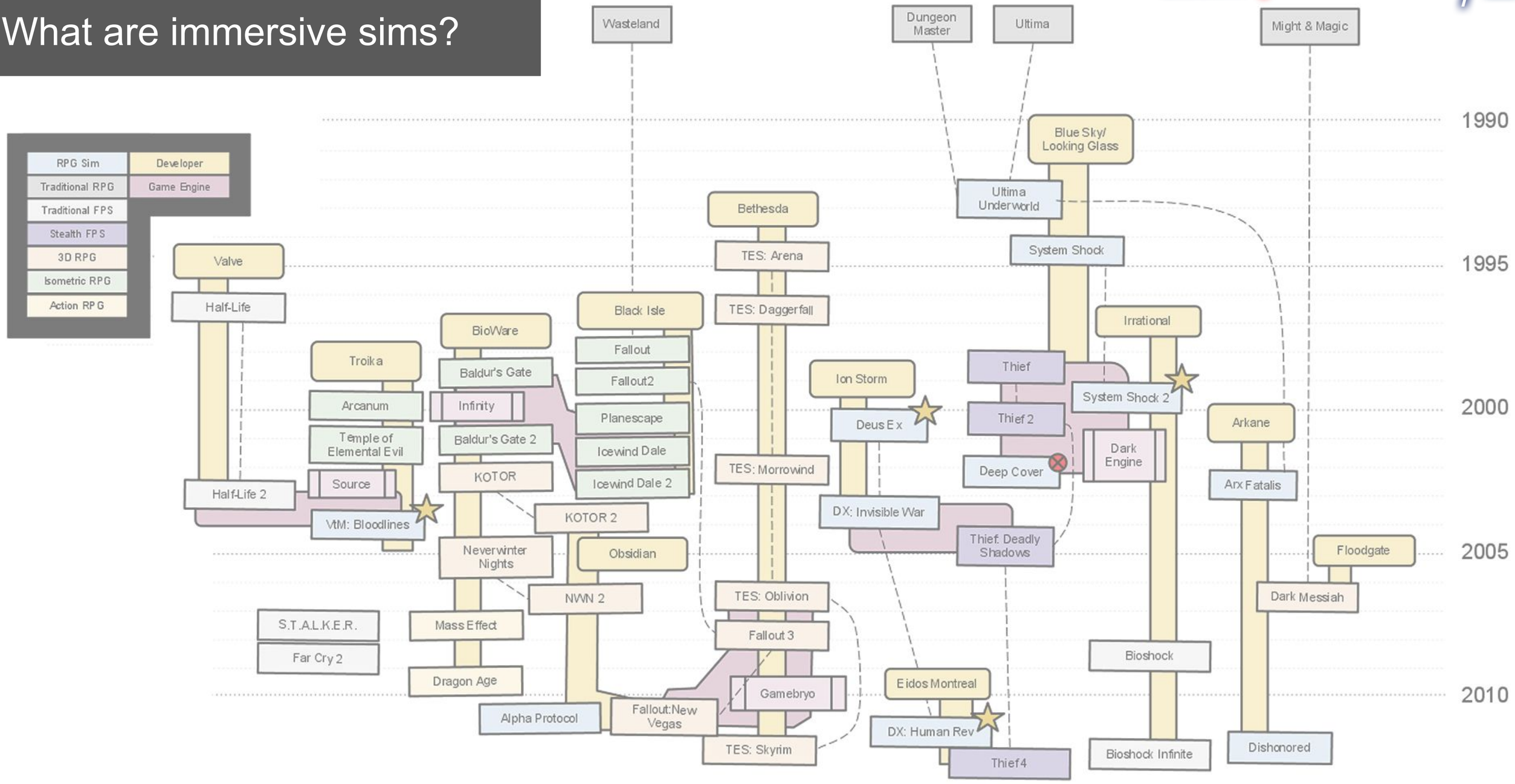
What are immersive sims?



What are immersive sims?

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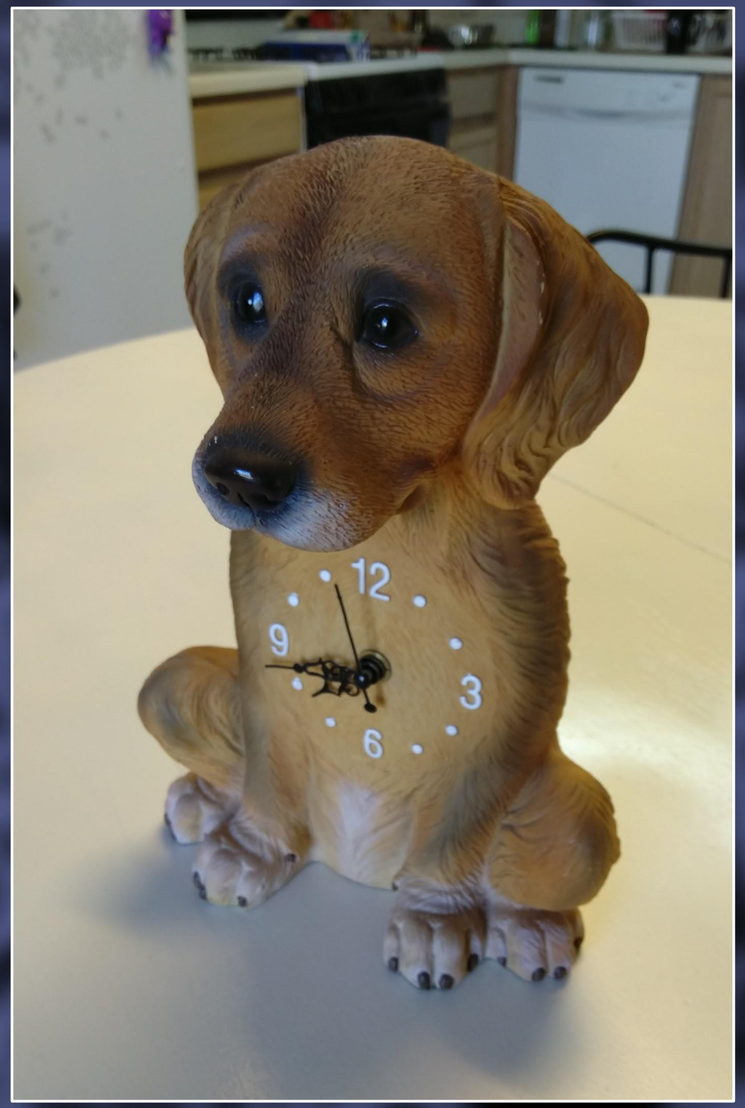
MOTIVATION
TO EVOLVE

Growing Beyond Our Domain

Why Roguelikes?

Deconstructing Our Game

Deconstructing Our Game



DLC Provides a Stable Launch Pad

- Tools and tech are mature
- Team is familiar with tools
- Mechanics are established

Game Jam
SCORE! SCORE! SCORE!
Motivation
100
100
100

Game Jam

Game Jam
Weaver
Motivation
HARVESTER OPS
75
100
100
x21

Game Jam
Pet Mimic
Motivation
Pet Mimic
F Unsummon
75
100
100

PRESERVATION
OF CORE VALUES

World Building and Storytelling

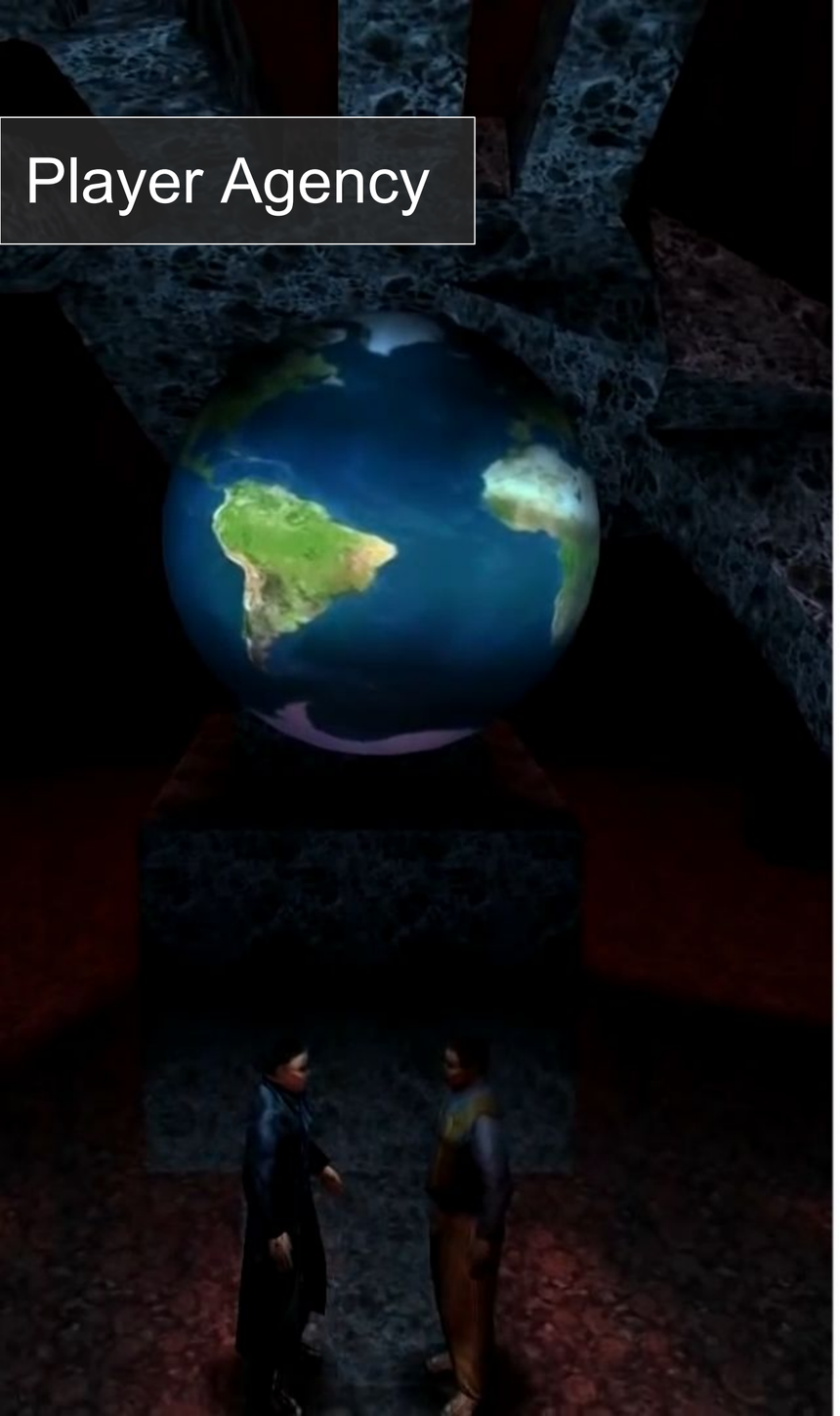
Process Intensity Theory

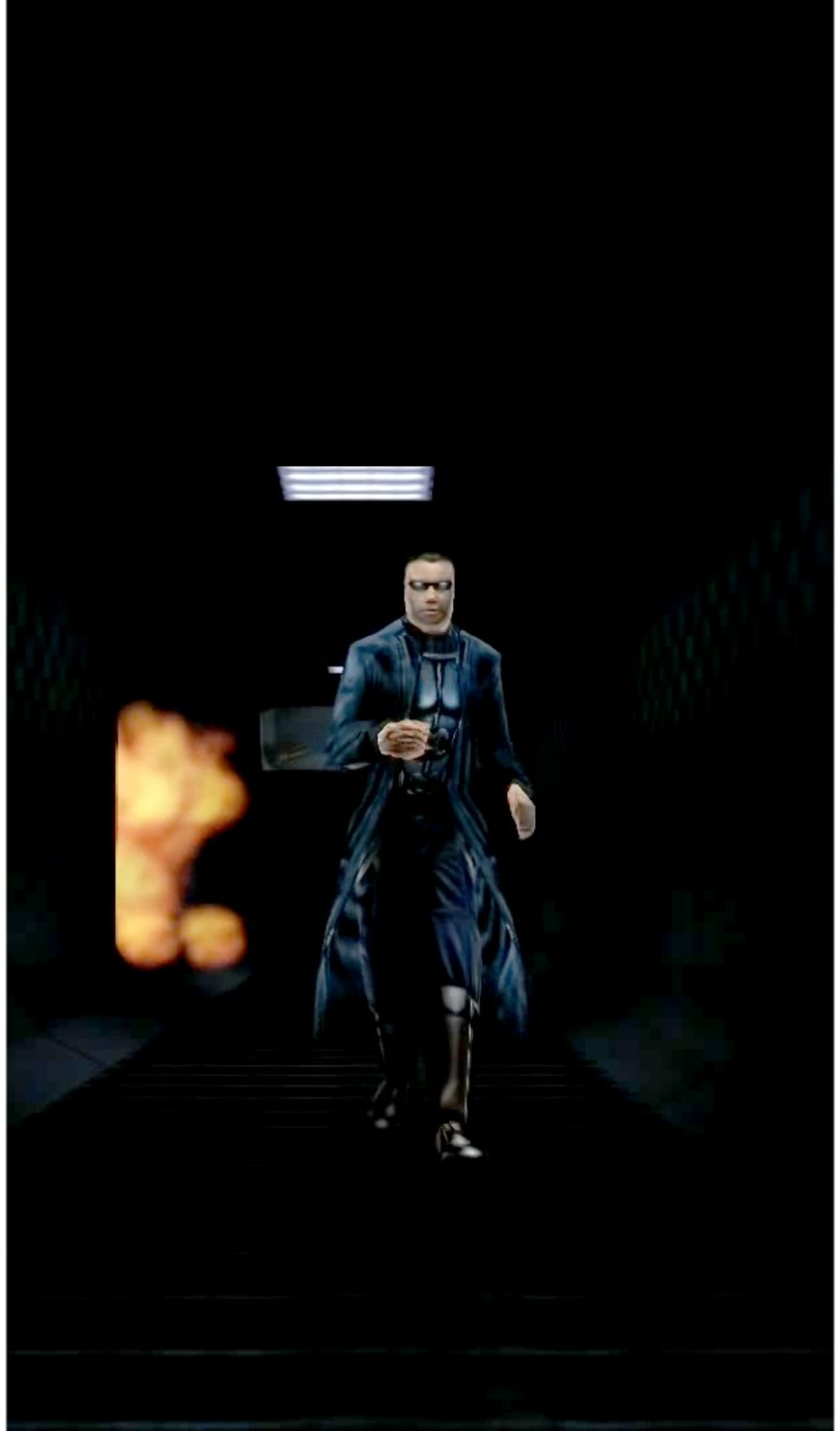
Process Intensity Theory

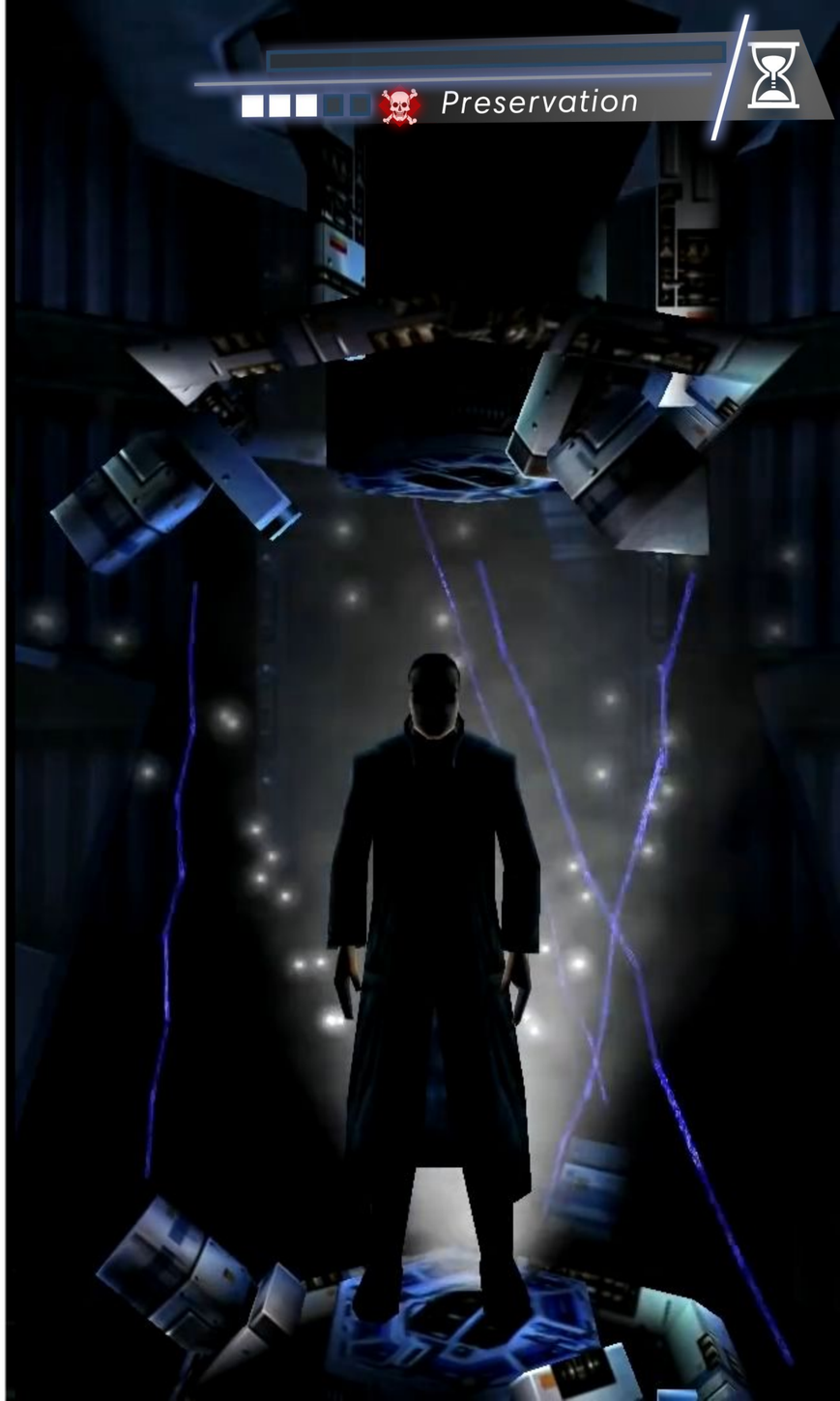
“Process intensity is the degree to which a program emphasizes processes instead of data. All programs use a mix of process and data. Process is reflected in algorithms equations, and branches. Data is reflected in data tables, images, sounds, and text. A process-intensive program spends a lot of time crunching numbers; a data-intensive program spends a lot of time moving bytes around.”

Player Agency

Player Agency







What is systemic design?

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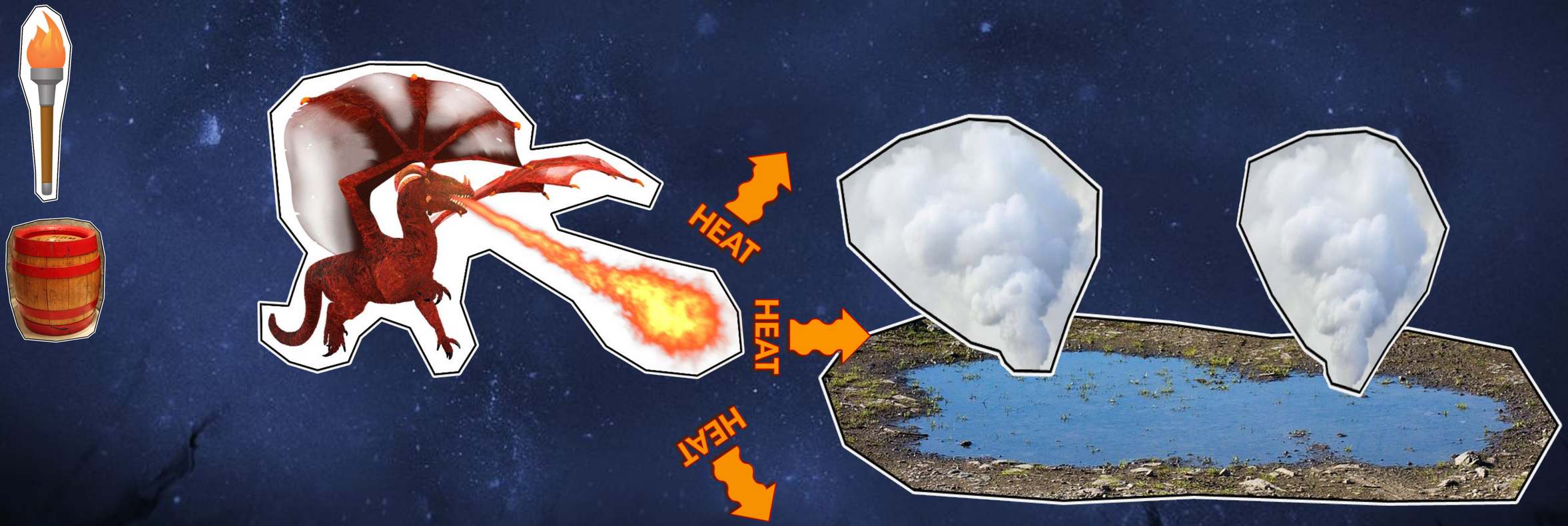

What is systemic design?

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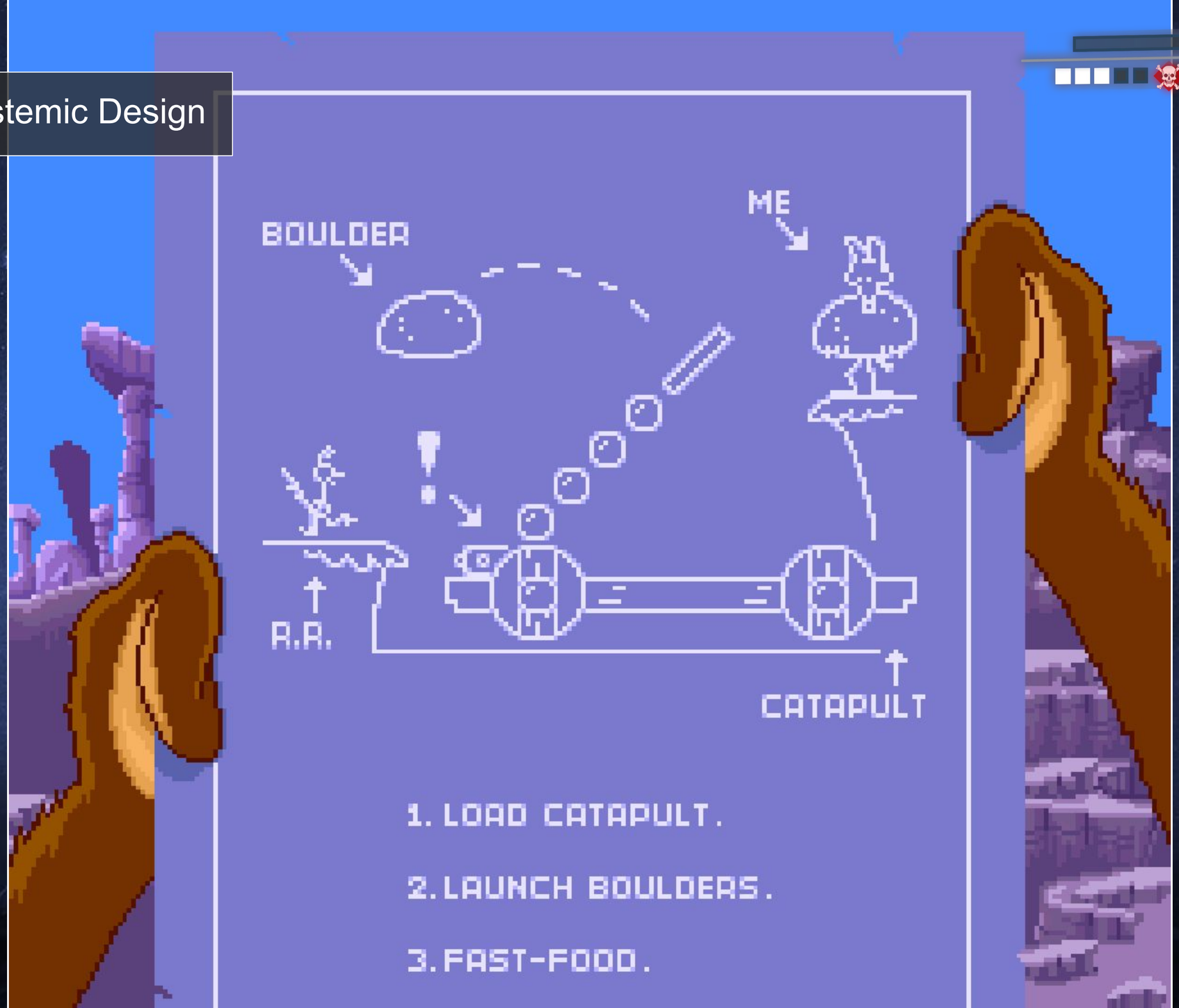
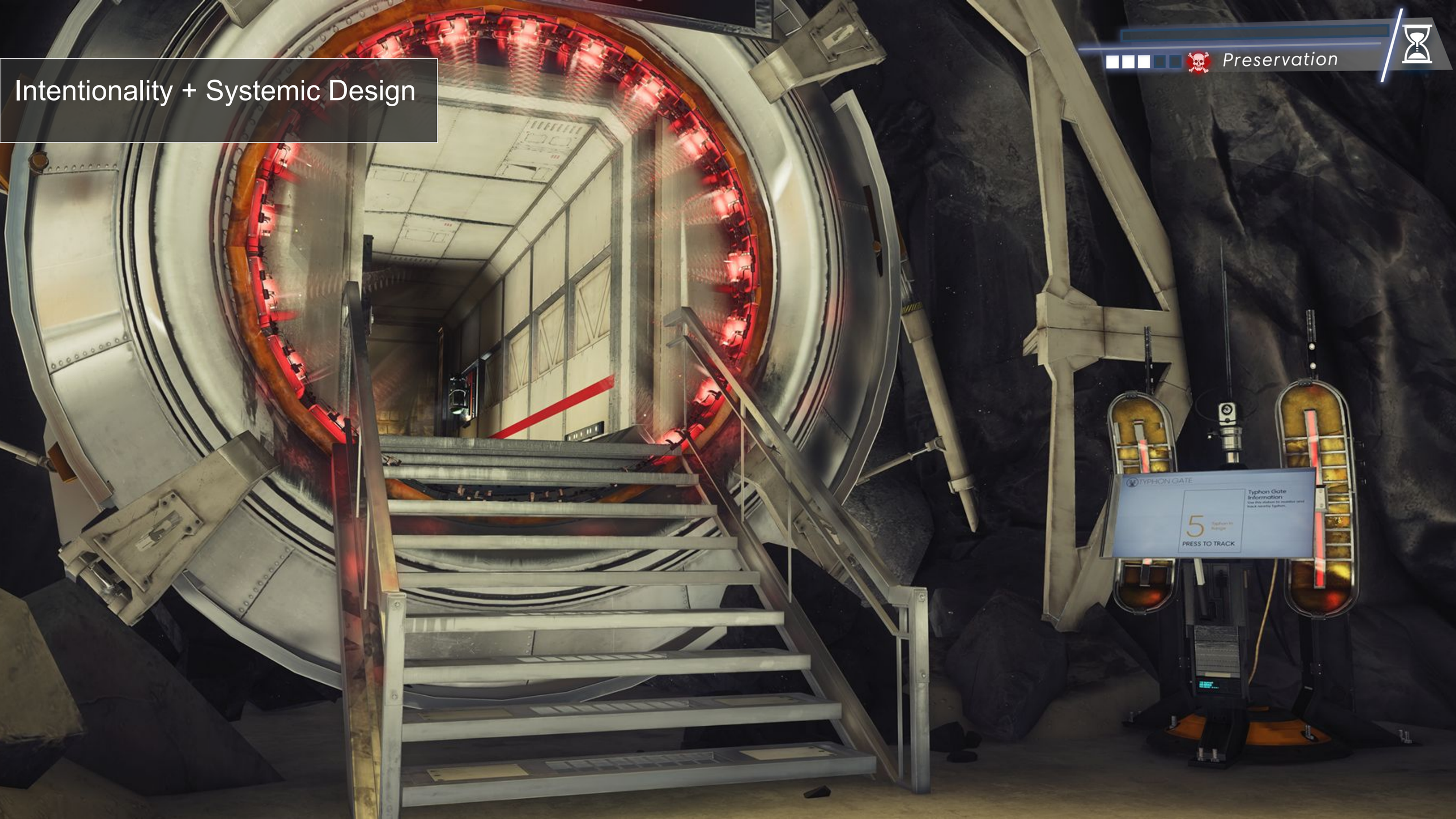
Intentionality + Systemic Design



Preservation

Intentionality + Systemic Design



Intentionality + Systemic Design

Intentionality + Systemic Design

Why make immersive sims?
S
Preservation
Lucan Valerius
Did something happen?
What have you got for sale?
Do you sell spells?
B Exit

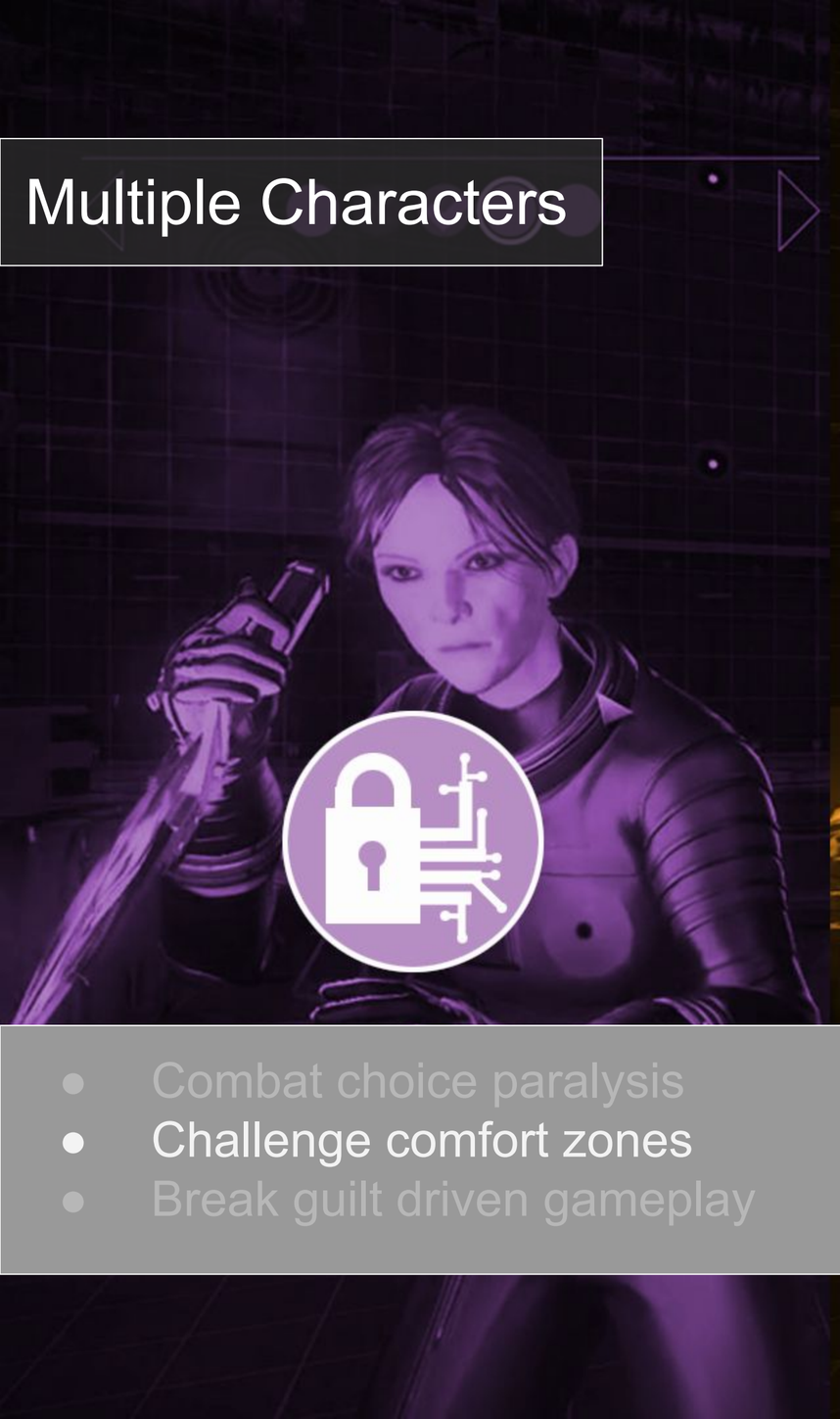
ADAPTATION
TO NEW PROBLEMS

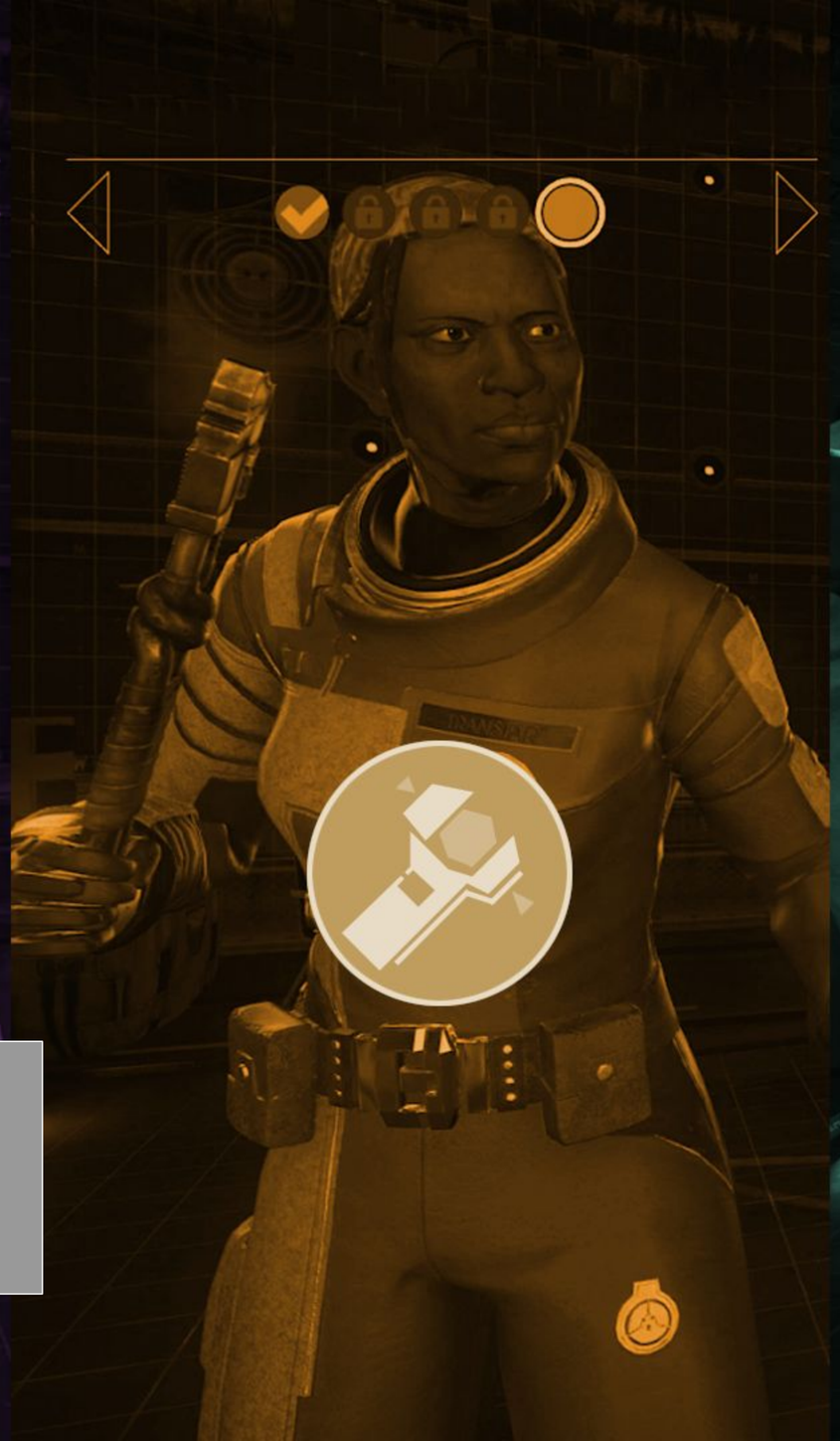
Multiple Characters

Multiple Characters

- Combat choice paralysis
- Challenge comfort zones
- Break guilt driven gameplay

Multiple Characters





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Multiple Characters

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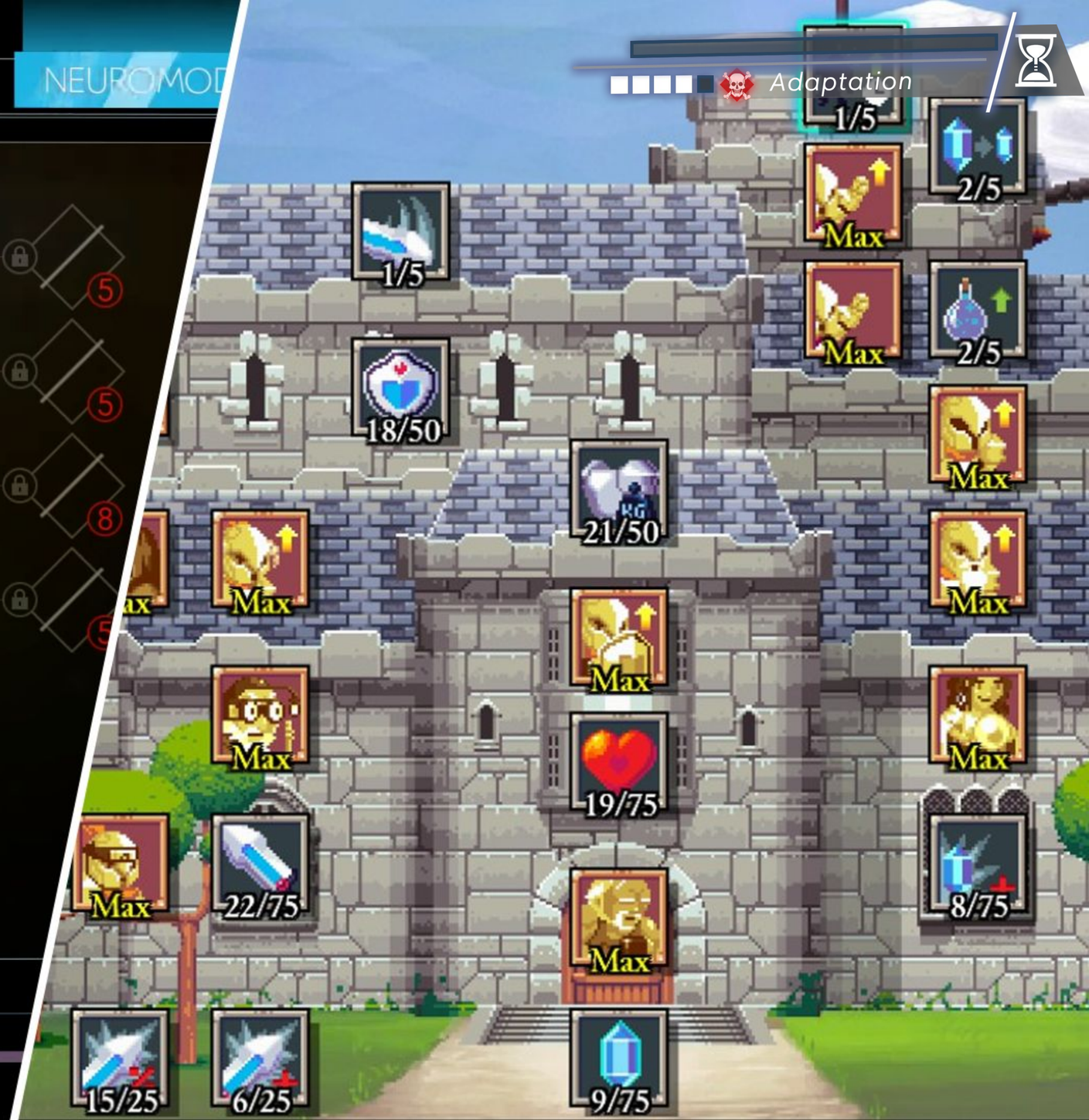
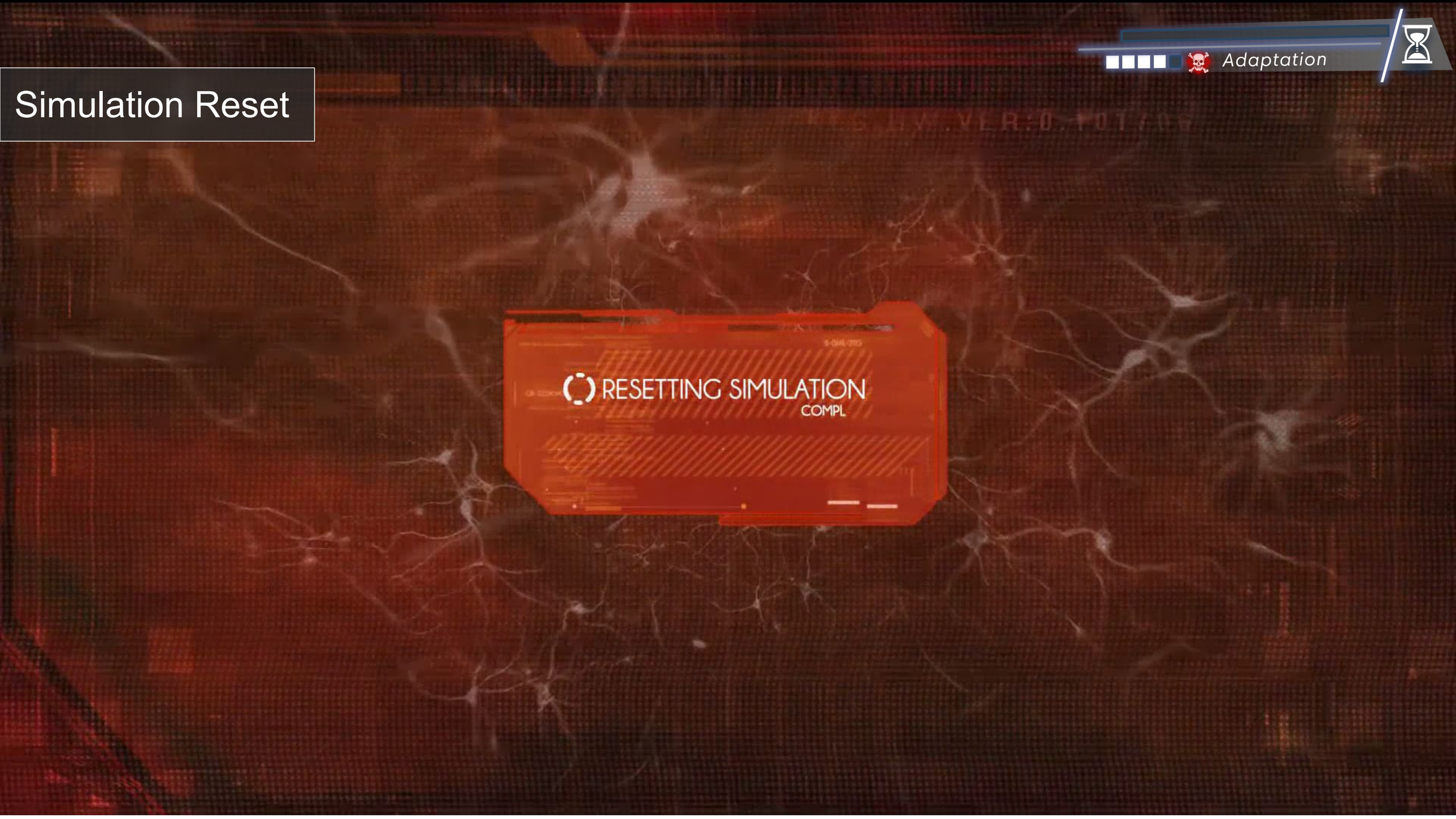
Replay vs Persistence
Adaptation
Fairy Chest Objective:
Defeat All Enemies

Replay vs Persistence



Simulation Reset



Persistence and the Afterlife

Adaptation

CREWMEMBER LINK TERMINATED

SCORING

Cystoids Destroyed	+50
Objects Repaired (Repair III)	+600
Keycards Collected	+100
Passwords Collected	+100
Simulation Deaths	+100

DECEASED

What you just did to yourself defies explanation.

Sim Points Earned

+950

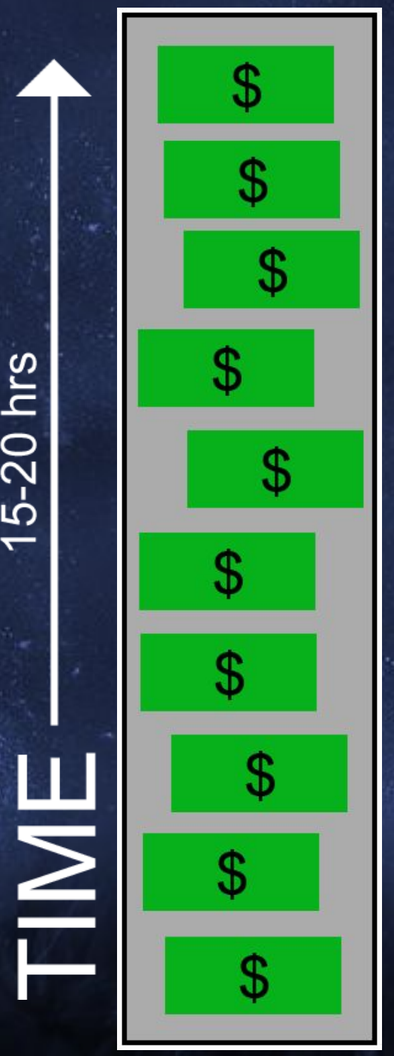
Total Sim Points

118725

CONTINUE

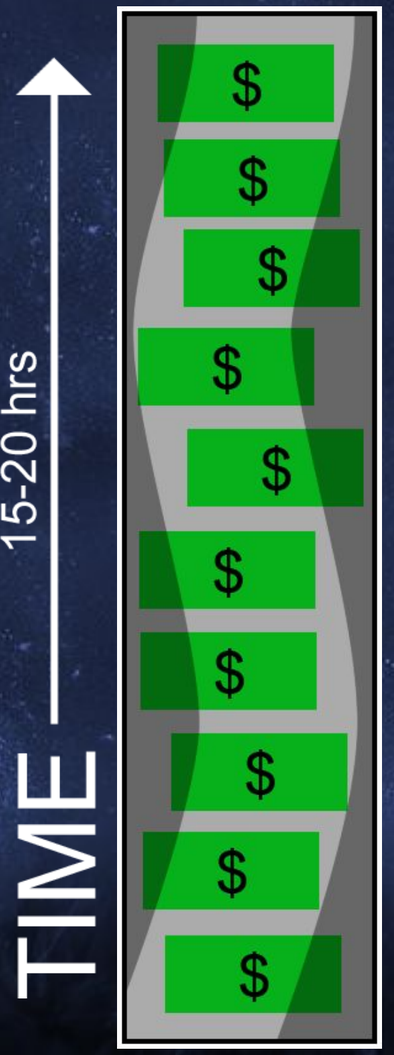
N HIGHLIGHTS S Take Screenshot Enter Continue

Replayability and Game Duration



Linear Game

Replayability and Game Duration

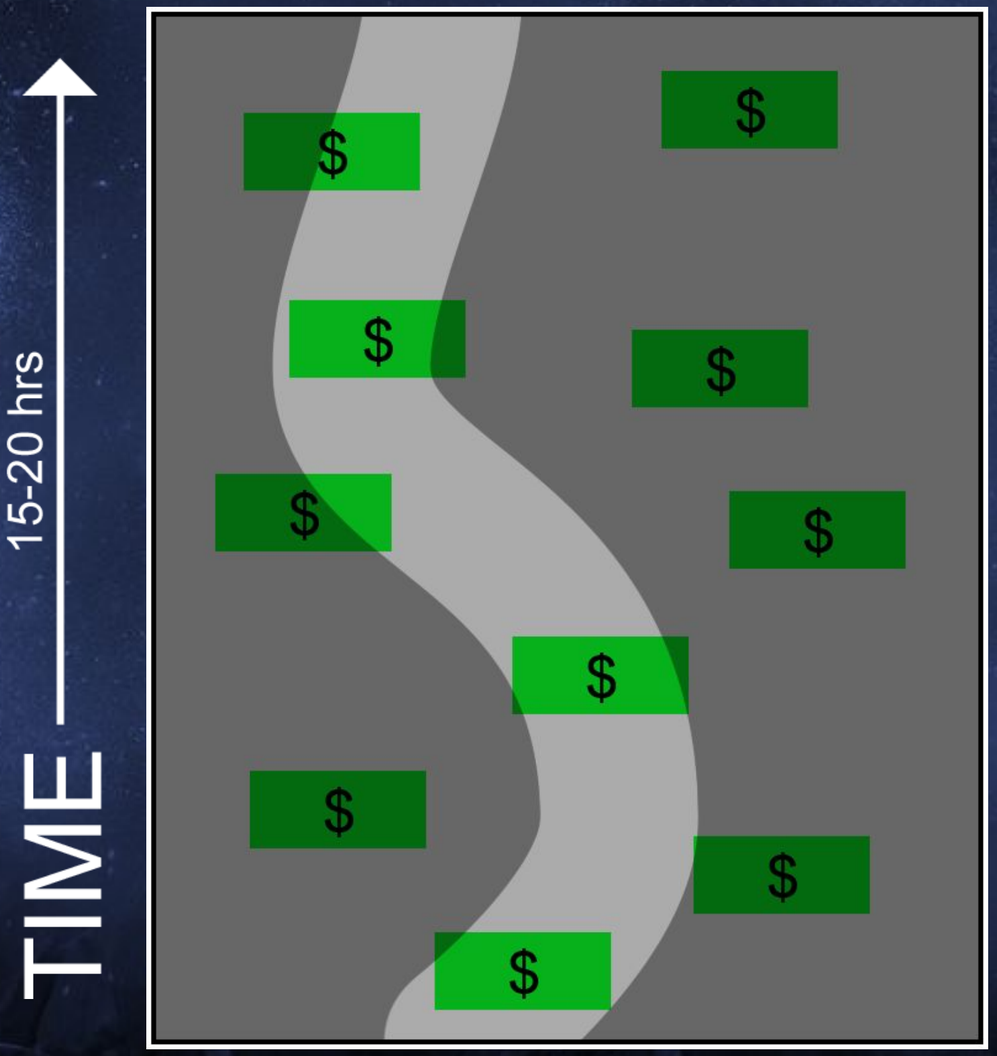


Linear Game

Replayability and Game Duration

Immersive Sim

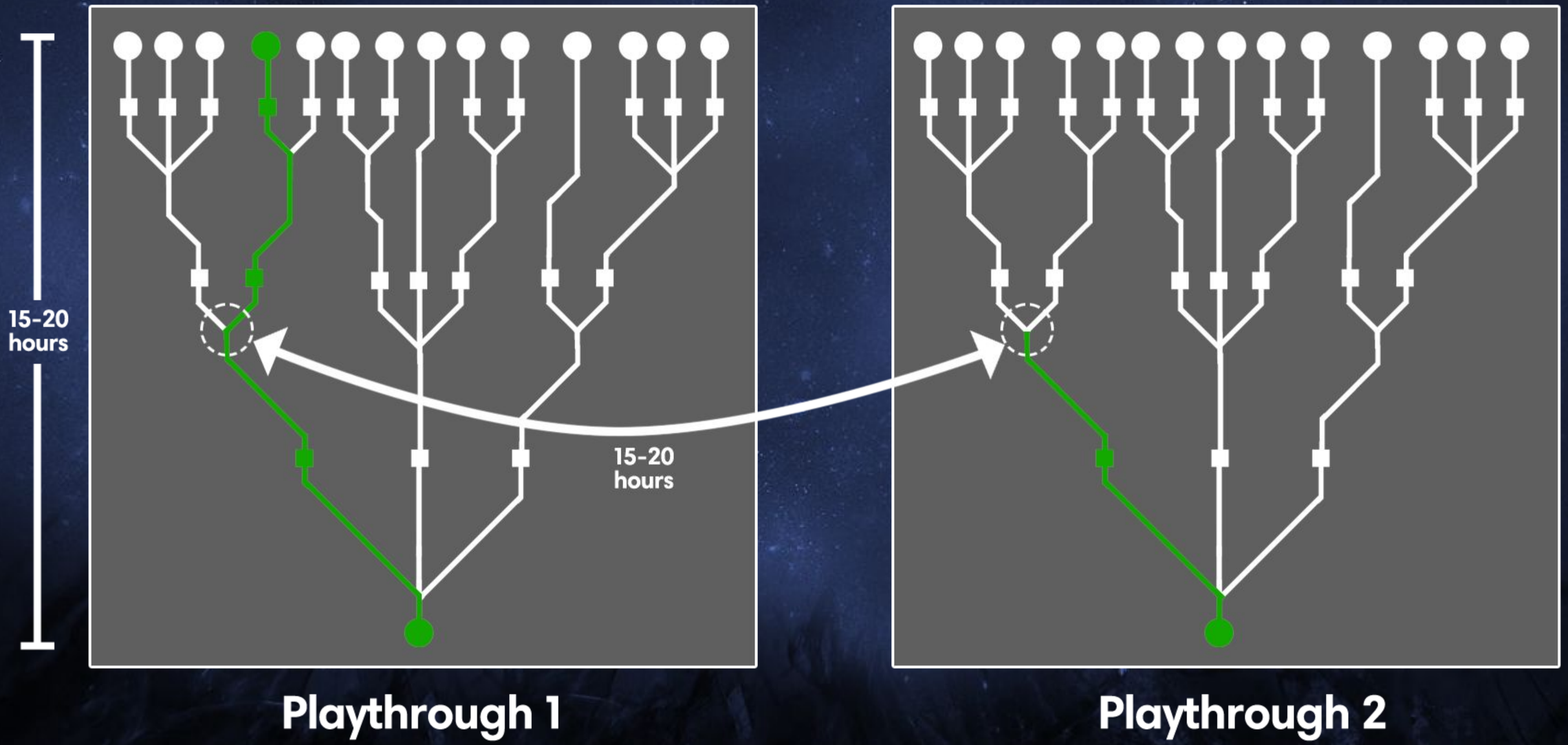
Replayability and Game Duration



Immersive Sim

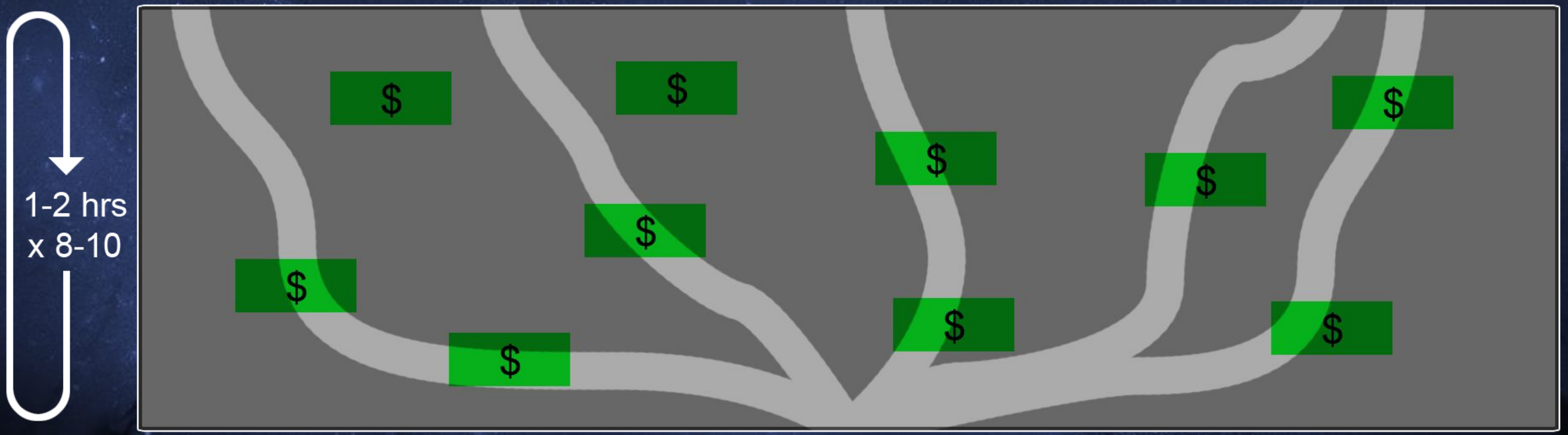
Replayability and Game Duration

Replayability Surfacing Agency



Replayability and Game Duration

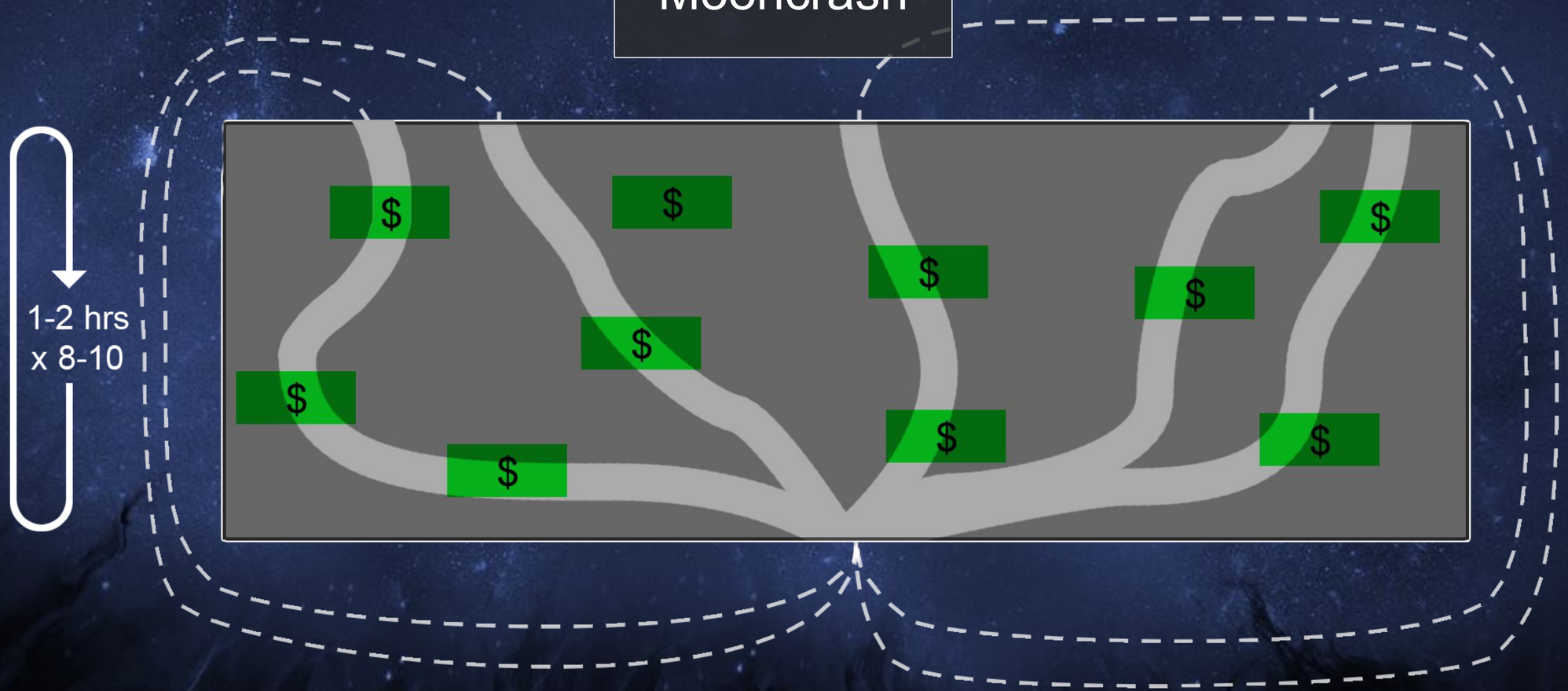
Mooncrash



Session 1

Replayability and Game Duration

Mooncrash



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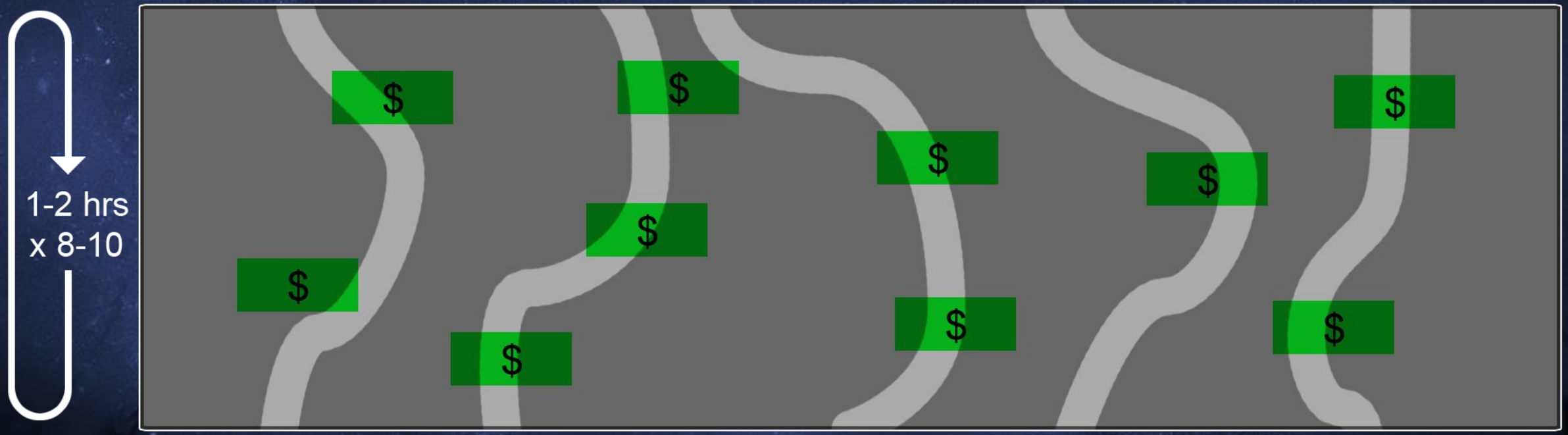

Session 1

The Threat of Infinite Content

Meaningful Variability

Environment Hazard “Channels”

Environment Hazard “Channels”

Adaptation
TYPHON CONTAINMENT
& CRATER ACCESS

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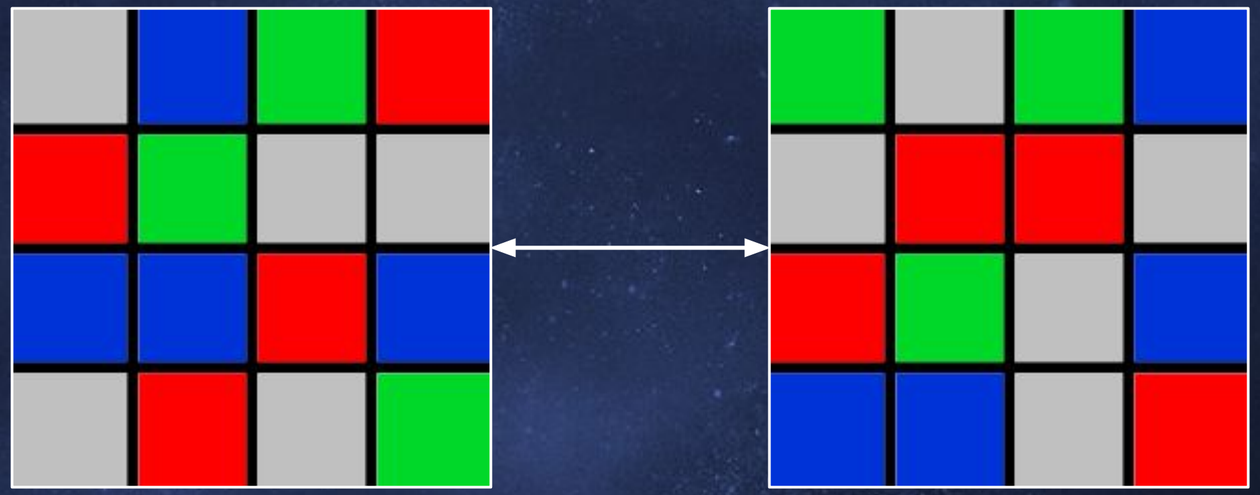
Adaptation
TYPHON CONTAINMENT
& CRATER ACCESS

Adaptation

WARNING
Adaptation

“Chunkiness” in Random Systems

- A little bit of everything in every level resulted in homogeneity
- Consolidating the elements leads to stronger theming
- Avoid the “chopped salad” effect



Level 1 Level 2

“Chunkiness” in Random Systems

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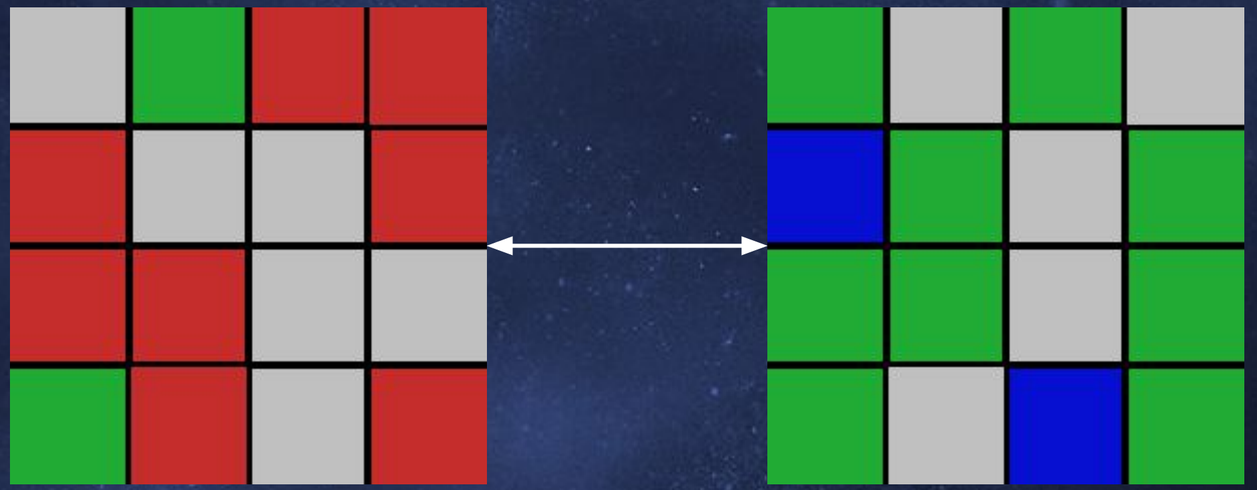

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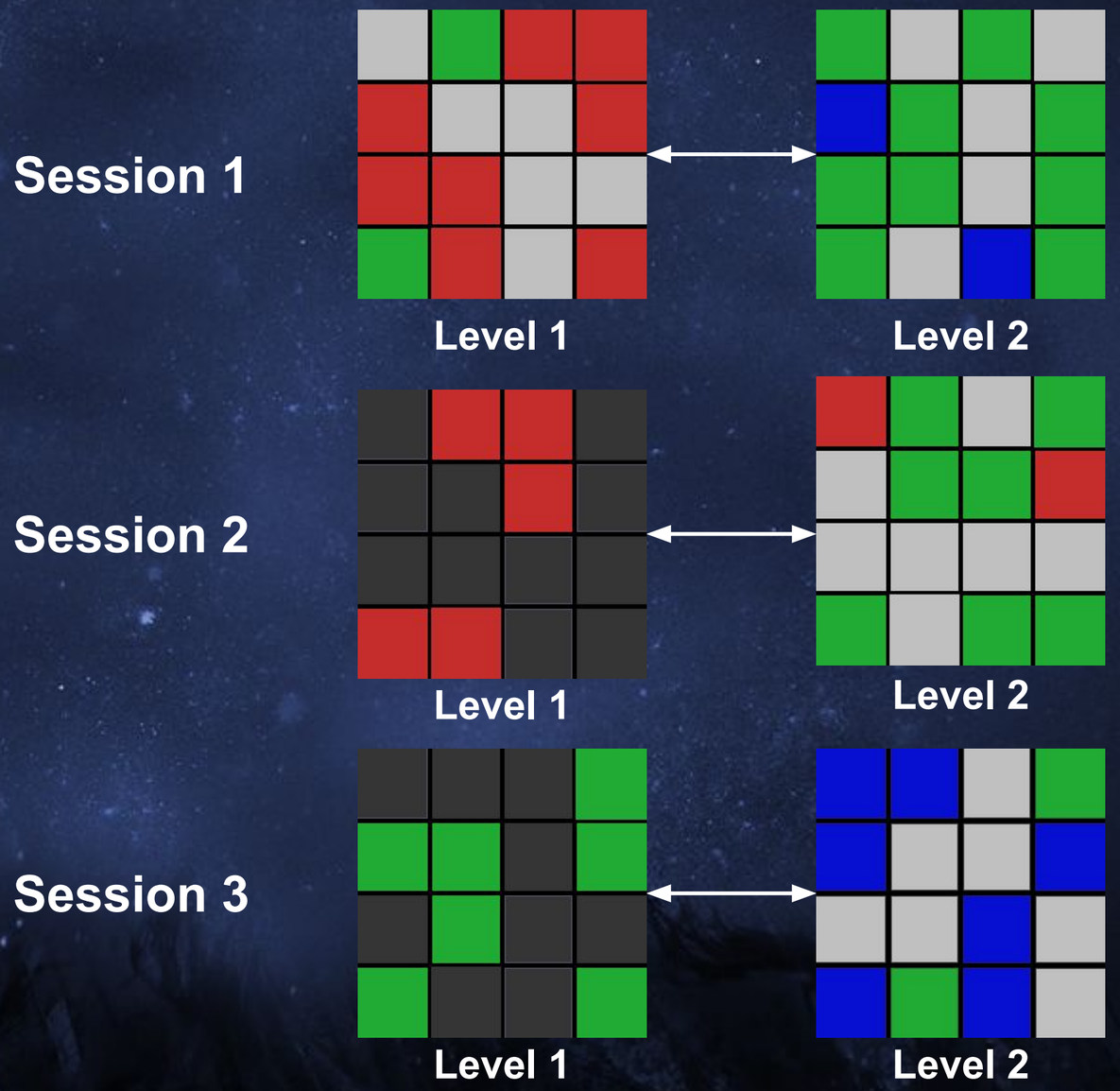

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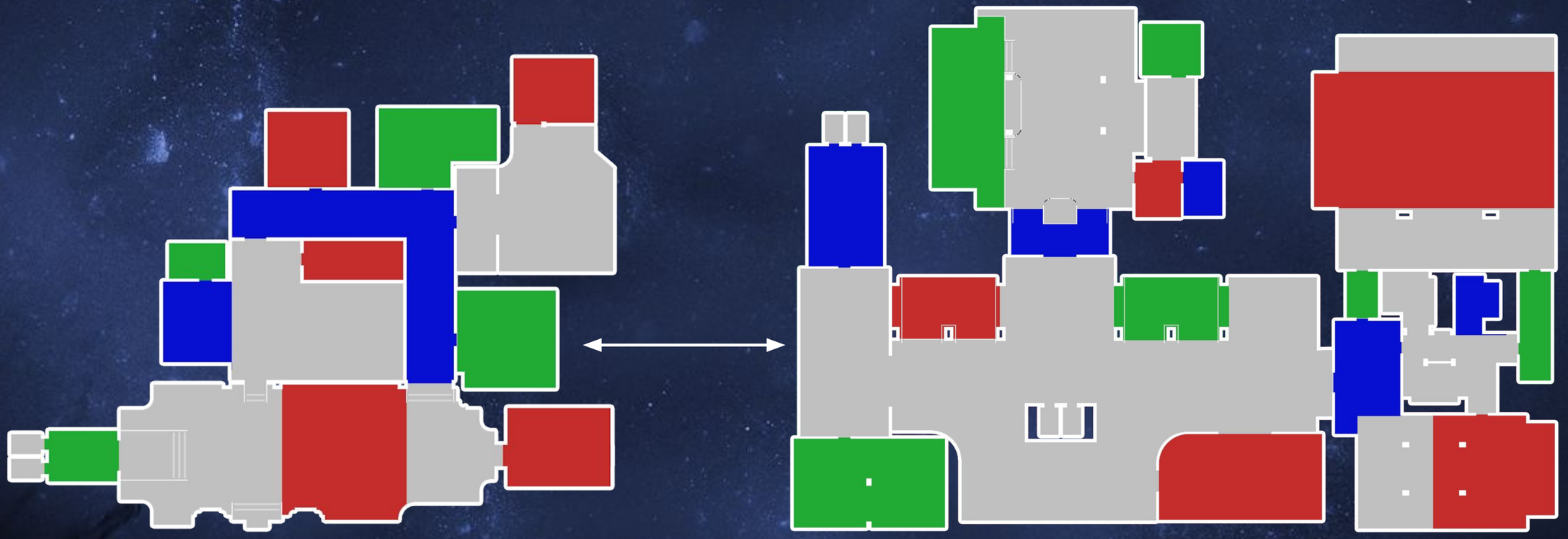

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Level 2

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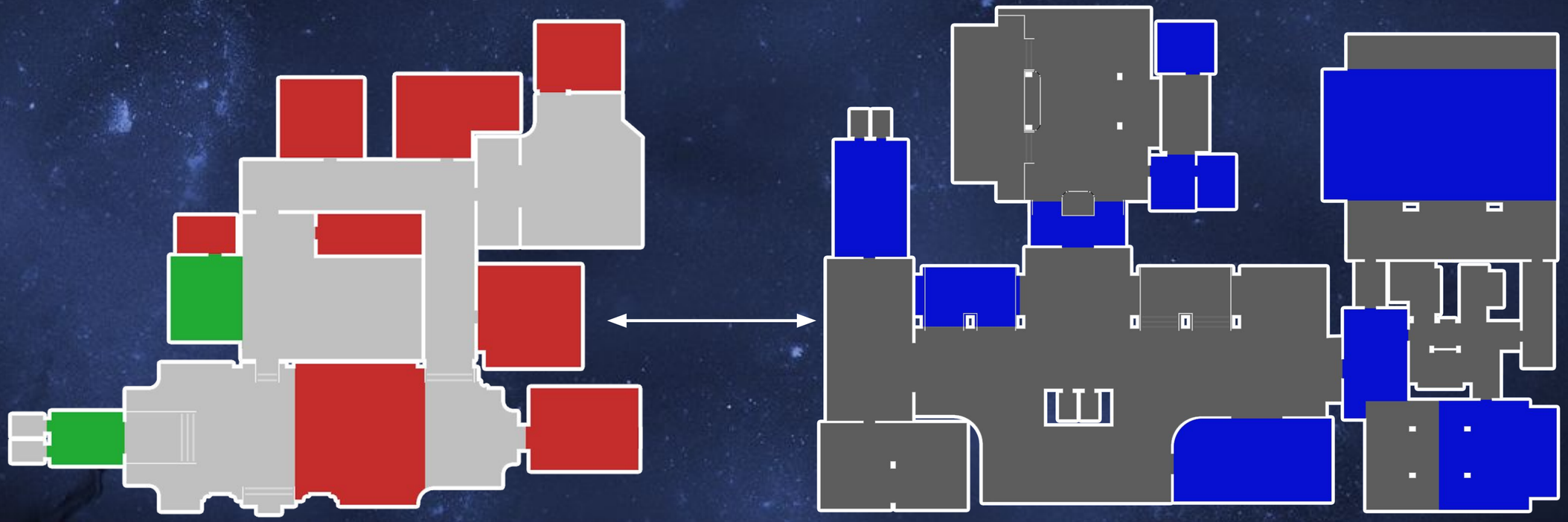


Level 1

Level 2

The Corruption Meter

Corruption Level

The longer you remain in the simulation, the more dangerous it becomes. Over time, the simulation advances through five levels of corruption causing Typhon enemies to repopulate and grow stronger. Eventually, the simulation will crash and eject you.

You may review tutorial messages later in the pause menu.

Enter View Tutorial Library **Mouse 2** Close

Adaptation

Kasma Orders

(Collect the Psychoscope at the top of Pytheas Labs)

- [x] Unlock Engineer, Joan Winslow
  (Escape with the Volunteer)

Escape Attempts

- [ ] Escape using the Shuttle in Crew Annex
- [ ] Escape using the Mass Driver in MoonWorks
- [x] Escape with an Escape Pod
- [ ] Escape through the Portal in Pytheas Labs
- [ ] Escape by Consciousness Emulation in Pytheas Labs
- [x] Escape with the Volunteer
- [ ] Escape with the Security Officer
- [ ] Escape with the Engineer
- [ ] Escape with the Custodian
- [ ] Escape with the Director
- [ ] Escape with Five Crew Members in a Single Run **(1/5)**

Story Objectives

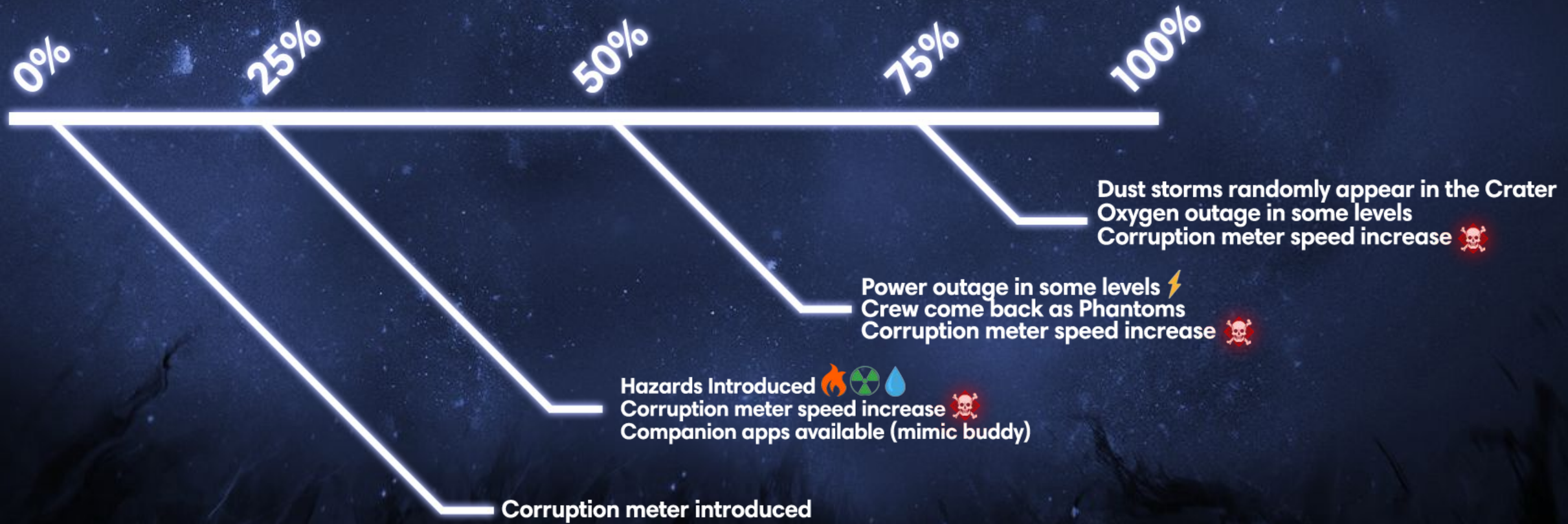
- [ ] Complete the Engineer's Story Objective
- [ ] Complete the Security Officer's Story Objective

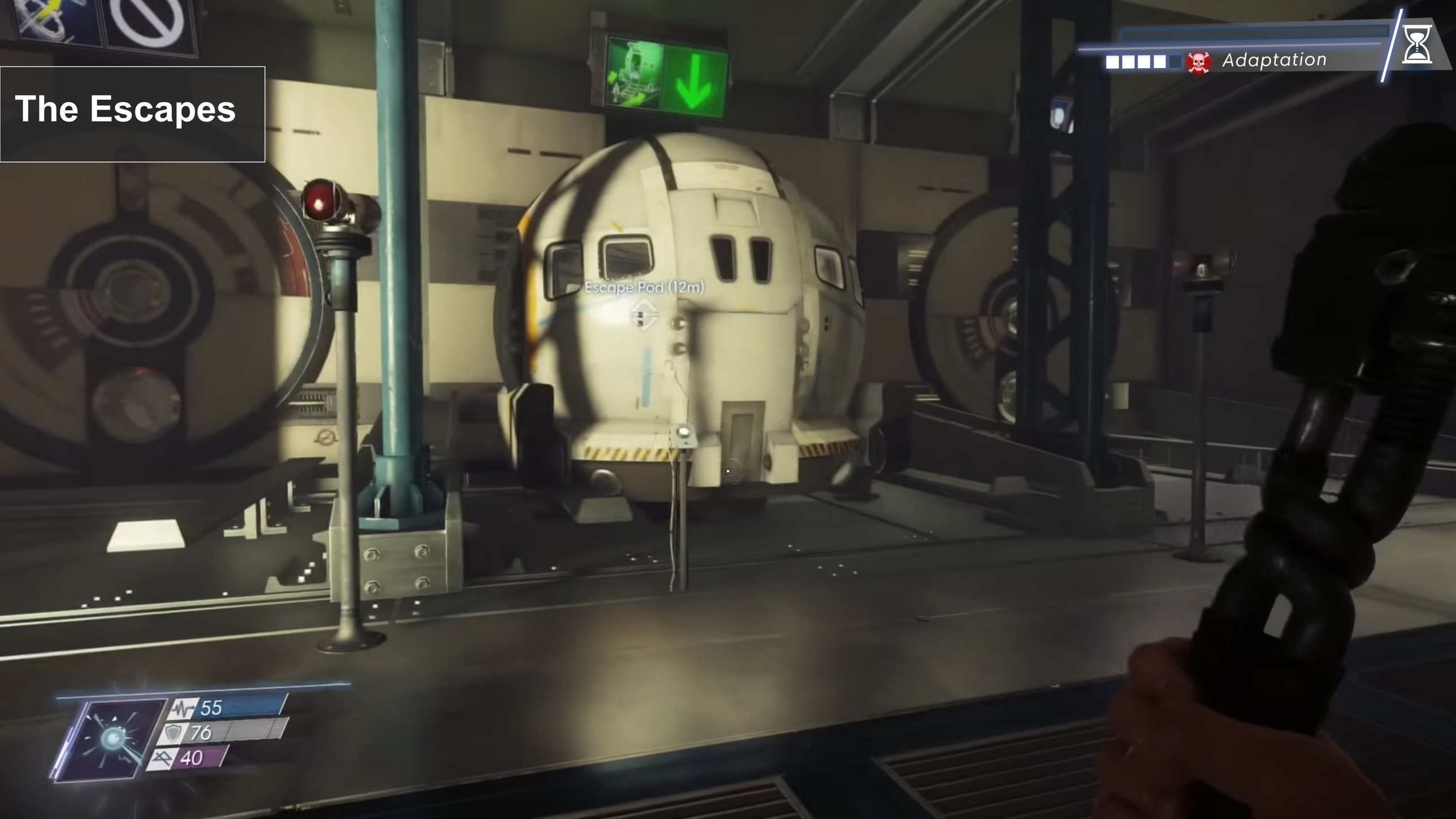
Complete all of the following items to fulfill your contract to KASMA Corp. Terms not negotiable.

Orders Completed
5/27

Kasma Orders

List Progress





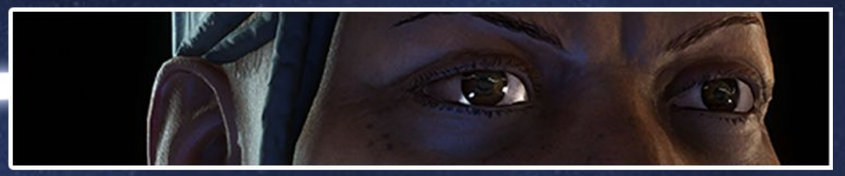
The Escapes

The Escapes - Shuttle

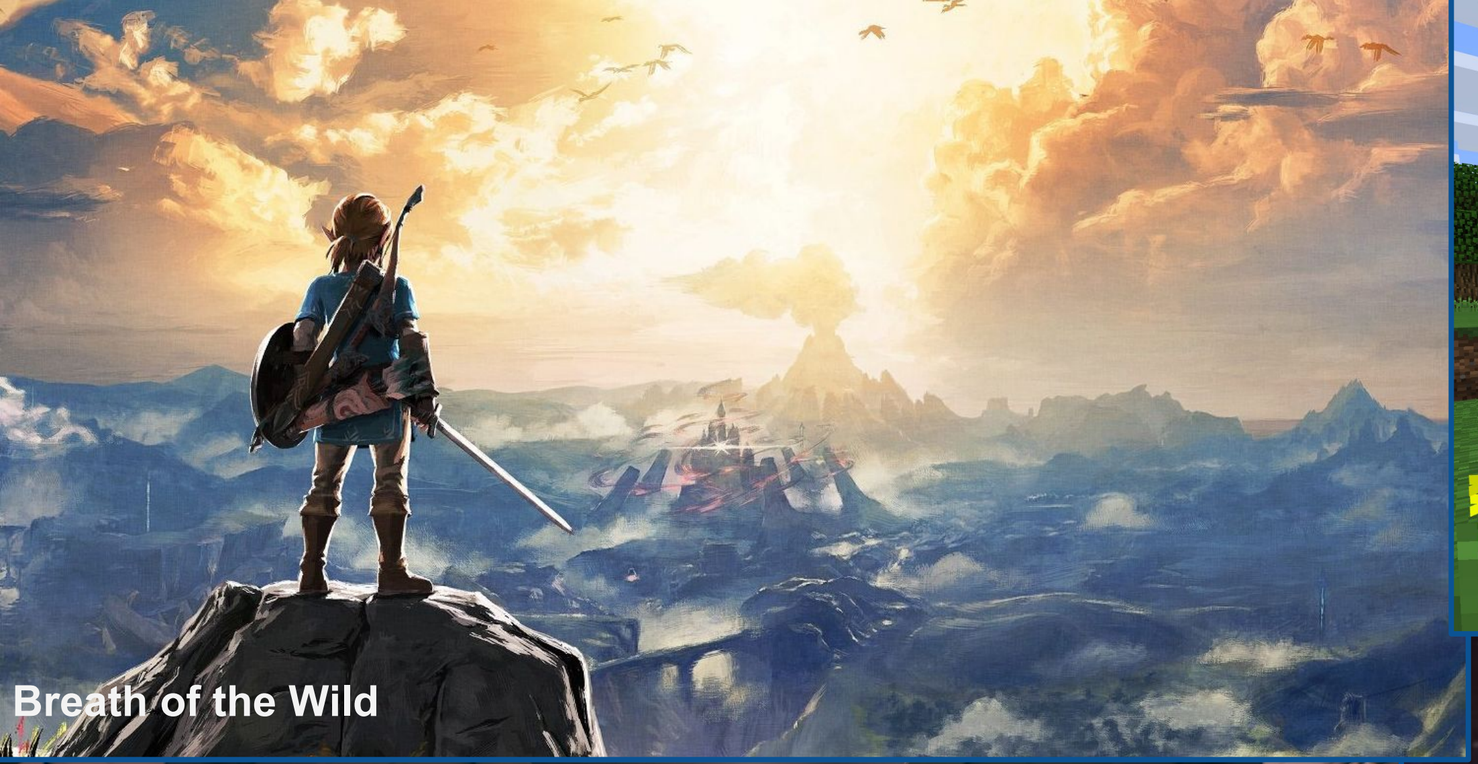
Adaptation
The Escapes - Cargo Container
MINE
ACCES
GRAV SHAFT

The Escapes - Portal

The Escapes



CONCLUSION


Breath of the Wild

Conclusion
Minecraft

The Occupation

Shadows of Doubt

Conclusion

Acknowledgements

Thanks to the Mooncrash dev team and to the design team for coming up with all of the cool stuff that I got to present.

GDC Mentoring

Clint Hocking

Art Resources

DeviantArt/Matomiku1284
Karen Segars
twitter/@digitfront
Zach Haefner

Test Subjects & Feedback

Walter Badgett
Ricardo Bare
Emily Beatty
Sadie Boyd
Jeremy Catlin
Ben Cooper
Steve Gaynor
Walker Hardin
Amber Hoffman
Jen Hollcroft
Ben Horne
Anthony Huso
Rachel Kittrell
Ricky Llamas
Ryan Mattson
Albert Meranda
Trent Polack
Steve Powers
George Royer
Rusty Sempsrott
Harvey Smith
Randy Smith
James Terry
Tisha Thompson
Sarah Witter

Student Test Subjects

Darius Ashley
Aaron Boehm
Jason Darholt
Chris Davenport
Eric Davis
Sebastian Gomez Sanchez
Weldon Hankton
Rick Herrera
Ven Jacobs
Tylan Limb
Albreyun McAfee
Chase Pugh
Joe Talbot

Questions?

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