META UI

INDUSTRY SURVEY

Analysis of UI and UX trends in current VR titles

FORCE FIELD

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01 BRIEF

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01 **BRIEF**

Survey VR titles to identify best practices and patterns in menu systems.

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02 **TAXONOMY**

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02 **TAXONOMY**

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02.1 # MENU TYPES

The Size, Space, and Shapes of menus can take a wide range of forms.

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MENU TYPES

02.1

The Size, Space, and Shapes of menus can take a wide range of forms.

WALL MENU

ARM MENU

HAND MENU

DIEGETIC MENU

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INTERACTION TYPES

02.2

Every title seems to find a new way to approach user interactions.

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INTERACTION TYPES

02.2

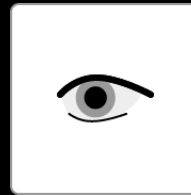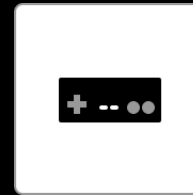Every title seems to find a new way to approach user interactions.

| POINTER | TOUCH | PHYSICAL | GESTURE | GAZE | CONTROLLER | POSITION |

Most revolve around these mechanics.
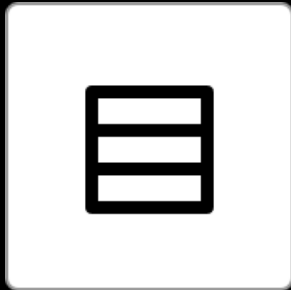
FORCE FIELD

02.3 **BEATS**

The unique and often planned moments during an experience.

BEATS

02.3

The unique and often planned moments during an experience.

MAIN MENU
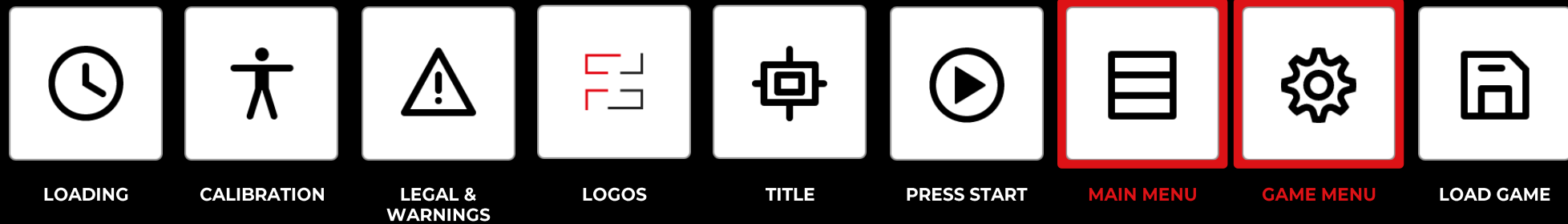The menu first presented when launching a title.

GAME MENU
The menu presented when the player presses the ⬛ button.

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BEATS

02.3

The unique and often planned moments during an experience.

LOADING	CALIBRATION	LEGAL & WARNINGS	LOGOS	TITLE	PRESS START	MAIN MENU	GAME MENU	LOAD GAME

Beats can range from the mundane to the fantastic

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TAXONOMY

BEATS

02.3

The unique and often planned moments during an experience.

| LOADING | CALIBRATION | LEGAL & WARNINGS | LOGOS | TITLE | PRESS START | MAIN MENU | GAME MENU | LOAD GAME |
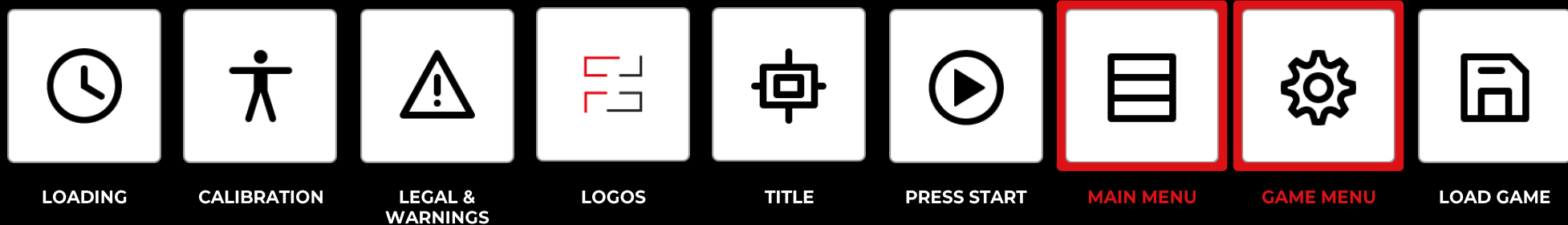
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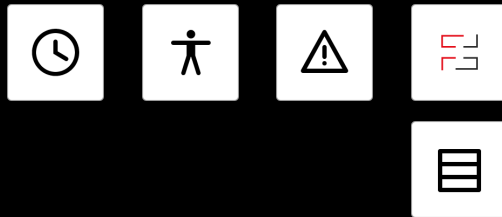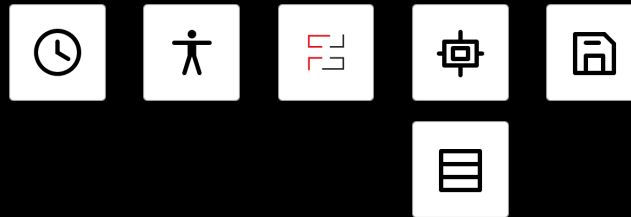(we're currently focusing on the mundane)

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BEATS

02.3

The unique and often planned moments during an experience.
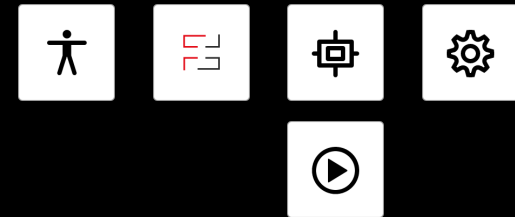
Beat Saber

Half-Life: Alyx

Asgard's Wrath

The order of beats can vary between titles

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TAXONOMY

A language to describe patterns

from surveyed titles.

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03 **ANALYSIS**

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03 ANALYSIS

Over 15 titles currently surveyed,

with deep dives into a few of the best.

Surveyed Titles

Title	Rating	Main Menu ☰	Main Input	Game Menu ⚙	Game Input	UI Space	UX☆	UI☆	Release	Engine
Asgard's Wrath	😊	Wall	Pointer, Controller	Wall	Pointer, Controller	3D	5	5	2019-10 OCT	Unreal
Beat Saber	😊	Wall	Pointer, Controller	Arm	Pointer	2D	5	5	2019-5 MAY	Unity
Half Life: Alyx	😊	Arm	Pointer, Controller	Arm	Pointer, Controller, Gesture	3D, 2.5D	4	5	2020-3 MAR	Source
Walking Dead: Saints and Sinners	😊	Arm	Pointer	Arm	Pointer	2D	4	3	2020-1 JAN	Unreal
Lone Echo	😊	Wall	Physical, Controller, Glance		Physical, Controller, Glance	2.5D	3	5	2017-7 JUL	Unreal
Moss	😊	Arm	Physical, Controller	Arm	Physical, Controller	2D	3	3	2018-2 FEB	Unreal
SUPERHOT	😊	Wall	Pointer	Wall	Physical, Pointer	2D	3	4	2017-5 MAY	Unity
Population: One	😊	Arm	Physical, Pointer		Physical, Pointer	3D, 2D	4	2	2020-10 OCT	Unity
Oculus Home	😊	Arm	Pointer		Pointer	3D	4	4	2020-10 OCT	Unreal
First Steps	😊	Diegetic			Physical	3D	3	3	2020-10 OCT	Unreal
No Man's Sky	😐	Wall, Hand, Diegetic	Controller, Pointer	Wall, Hand	Controller, Pointer	2D	3	3	2016-8 AUG	Custom
Vader Immortal I	😐	Arm	Touch	Arm	Touch	2D	2	2	2019-6 JUN	Unreal
VR Chat		Hand	Pointer, Touch	Hand	Pointer	2D			2017-2 FEB	
Quill		Hand	Pointer						2016-11 NOV	
Landfall		Wall	Controller							

Pending Titles

| Title	Main Menu ☰	Main Input	Game Menu ⚙	Game Input	UI Space	UX☆	UI☆	Release	Engine
Skyrim VR								2018-4 APR	
Pavlov VR								2017-2 FEB	
Rec Room								2016-6 JUN	
Gorn								2019-7 JUL	
the Climb								2016-4 APR	
Rush								2018-5 MAY	
Job Simulator								2016-4 APR	
Star Wars: Squadrons								2020-10 OCT	
The Room VR: A Dark Matter								2020-3 MAR	
Phasmaphobia								2020-9 SEP	
the Lab								2016-4 APR	
Time Stall									
Nat Geo									

Taxonomy

Below is a guide to the terms used to describe VR titles

Interactions

Interaction

Pointer
Controller or Hands are used to point to targets for interaction.

Touch
Interactions are in hands reach of the player, relying on basic push interactions.

Display Space

Menu Types

Wall Menu
The menu is large and a distance from the player.

Arm Menu
The size and position of the menu are in a personal scale and space to the player.

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03 ANALYSIS

Over 15 titles currently surveyed,

with deep dives into a few of the best.

Which meant lots of footage.

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Project: Meta UI ☰ | Bin: Asgard's Wrath | Media Browser | Markers | Audio Clip Mixer: Half Life Alyx Inventory Management | Libraries

Meta UI.prproj

Name ∧	Tags	Media Durati	Video In Point	Video Out Po	Video Duration	Subclip Start
⌄ !In-World						
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	In-World, Mission, Quest, Objective	00:50:42:53	00:20:21:30	00:20:32:35	00:00:11:06	
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	Physical, Doors, In-World, HUD	00:50:42:53	00:13:17:34	00:13:56:10	00:00:38:37	
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	Tutorial, HUD, Quest, Objective, In-World, Health, Peripheral, FX, Damag	00:50:42:53	00:26:26:35	00:26:56:18	00:00:29:44	
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	Tutorial, Quest, Objective, Physical, In-World	00:50:42:53	00:28:52:27	00:29:12:47	00:00:20:21	
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	In-World, Physical, Eating, Objective, Marker, HUD, Quest, Update	00:50:42:53	00:28:09:32	00:28:34:14	00:00:24:43	
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	Physical, Grab, Interact, Tutorial, In-World	00:50:42:53	00:31:18:54	00:31:49:51	00:00:30:58	
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	HUD, Quest, In-World, Skills, Talents, Physical, Tutorial	00:50:42:53	00:32:19:38	00:32:52:43	00:00:33:06	
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	Physical, Pull, HUD, In-World, Quest	00:50:42:53	00:34:16:42	00:34:32:05	00:00:15:24	
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	In-World, Quest, Objective, Physical, Tutorial	00:50:42:53	00:36:08:56	00:36:16:51	00:00:07:56	
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	Puzzle, Phsycal, In-World	00:50:42:53	00:38:15:17	00:38:24:55	00:00:09:39	
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	In-World, Companion, Menu, Radial	00:50:42:53	00:38:48:22	00:38:52:43	00:00:04:22	
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	Quest, In-World, Message, Iventory, Item, Equipment	00:50:42:53	00:42:28:46	00:43:04:39	00:00:35:54	
BeatSaber.mp4	Gameplay, Controllers, Slide, Pointer, HUD, In-World	00:11:11:16	00:05:21:10	00:05:51:13	00:00:30:04	
LoneEcho export.mp4	Game Menu, Hand, Diegetic, in-world	00:29:52:28	00:23:34:50	00:25:03:36	00:01:28:43	
The Walking Dead Saints & Sinners 2021.05.07 - 11.37.26.01	Tutorial, Melee, In-World	00:39:23:59	00:07:03:22	00:07:09:03	00:00:05:42	
Vader Imortal.mp4	Tutorial, In-World, Controller, Physical	00:10:09:01	00:06:59:15	00:07:14:21	00:00:15:07	
Vader Imortal.mp4	Diegetic, Physical, Hologram, In-Game, In-World	00:10:09:01	00:08:15:17	00:09:14:02	00:00:58:10	
⌄ !Menu						
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	Tutorial, HUD, Mission, Settings, Game Menu, Mission, Quest	00:50:42:53	00:14:06:40	00:15:22:10	00:01:15:31	
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	Game Menu, Settings, Big Menu, Inventory, Crafting, Tutorial	00:50:42:53	00:26:50:21	00:27:43:08	00:00:52:48	
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	Tutorial, Inventory, Game Menu, Quest, Objective	00:50:42:53	00:30:13:20	00:30:45:24	00:00:32:05	
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	Tutorial, Weapon, Inventory, Game Menu, Equipment	00:50:42:53	00:43:18:06	00:43:59:55	00:00:41:50	
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	In-World, Companion, Menu, Radial	00:50:42:53	00:38:48:22	00:38:52:43	00:00:04:22	
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	HUD, Game Menu, Mission, Objective, Map, Level Loading	00:50:42:53	00:22:49:10	00:23:43:57	00:00:54:48	
Asgard's Wrath VR 2021.04.19 - 13.27.51.02.mp4	Game Menu, Quest, Log, Grid	00:50:42:53	00:14:30:26	00:14:39:38	00:00:09:13	
Asgard's Wrath VR Game Menu	Game Menu, Inventory, Items, Tutorial, Quest Log, Game Save	00:50:42:53	00:49:16:02	00:50:06:16	00:00:50:15	
Asgard's Wrath VR Main Menu	Main Menu, Settings	00:50:42:53	00:01:33:23	00:02:36:09	00:01:02:47	
Asgard's Wrath VR Menu Top Level.png			177435	177733	299	
Beat Saber - Game Menu.png			11312	11430	119	
Beat Saber - Main Menu Exploration	Main Menu, Big Menu	00:11:11:16	00:00:19:22	00:00:29:10	00:00:09:13	
Beat Saber - Main Menu Exploration and track list	Main Menu, Game Modes, Field of Vision, Big Menu	00:11:11:16	00:03:49:02	00:04:35:04	00:00:46:03	
Beat Saber Main Menu.png			627	745	119	
BeatSaber.mp4	Game Menu, Pause	00:11:11:16	00:07:50:01	00:07:56:22	00:00:06:22	
BeatSaber.mp4	Main Menu, Tool Tips, Pointer, Big Menu, Scoreboard, Settings	00:11:11:16	00:08:15:17	00:08:31:03	00:00:15:11	
Half Life Alyx Game Menu from Control	Game Menu, Pointer, Controller, Arm	00;07;29;27	00;06;04;55	00;06;13;27	00;00;08;33	
Half Life Alyx Game Menu	Game Menu, Pointer, Progressive Disclosure, Arm	00;07;29;27	00;05;23;49	00;05;41;56	00;00;18;08	
Half Life Alyx Game Menu.png			00;05;33;30	00;05;38;28	00;00;04;59	
Half Life Alyx Inventory Management	In-Game, Game Menu, Inventory, Gesture, Diegetric	00;07;29;27	00;06;15;50	00;06;43;01	00;00;27;12	
Half Life Alyx Main Menu Construction	Main Menu, 3D, 2.5D, FX, Art	00;07;29;27	00;00;27;59	00;00;59;57	00;00;31;59	
Half Life Alyx Main Menu Overview	Main Menu, Pointer, Arm	00;07;29;27	00;01;00;33	00;02;08;34	00;01;08;02	
Half Life Alyx Main Menu.png			00;01;00;13	00;01;05;11	00;00;04;59	
Half Life Alyx Progressive Disclosure	Main Menu, Pointer, Progressive Disclosure, Controller, Arm	00;07;29;27				
Half Life Alyx Settings Construction	Main Menu, Settings, Pointer, Controller, Arm,	00;07;29;27				
Half-Life Alyx Diegetic UI	Game Menu, Diegetic,	00;07;29;27				
Lone Echo Dialog	Game Menu, Dialog, Hand	00:29:52:28	00:12:12:07	00:12:18:10	00:00:06:04	
Lone Echo Dialog Tutorial	Game Menu, Dialog, Hand, Tutorial	00:29:52:28	00:08:41:34	00:08:56:29	00:00:14:52	

ANALYSIS

03.1 # Wall Menus

Pros

- Large spaces sell the fantasy of VR.

- Can take advantage of peripheral display space.

- Well suited for 2D display systems (like UMG).

- Can look/feel more like a traditional menu.

Cons

- Can look/feel more like a traditional menu.

- Can require a "Meta-room" to avoid space issues.

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03.2 Arm Menus

Pros

- Lots of versatility with size and orientation.

- Multiple interact options (point, touch, physical).

- Flexibility for anchored and dynamic positioning.

- Can use 3D assets to great effect.

Cons

- Can't overload due to narrow field of vision.

- Working with peripheral vision can cause strain.

FORCE FIELD

03.3 # Hand Menus

Pros

- Good for light menu systems and interactions.

- Players can easily manipulate for comfort.

- Used for creative tools like an artist's palette.

- Helpful for controller tutorialization.

Cons

- Takes more time to understand/acclimate to.

- Can be a distraction from gameplay.

Color Picker

FORCE FIELD

03.4 **Beat Saber**

Beat Saber is a VR rhythm game where you slash the beats of adrenaline pumping music as they fly towards you, surrounded by a futuristic world.
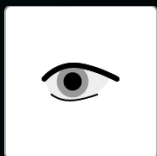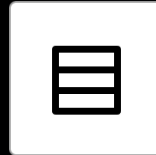
FORCE FIELD

03.4 Beat Saber

WALL
- Clean simple main menu.
- Menus gets more complex as you dig.
- Fits the play space defined by the game.

POINTER
- Simple and comfortable at a distance.
- Easy to navigate big grids and lists.

CONTROLLER
- Analog sticks can scroll long track lists.
- Provides a comfortable alternative to grabbing and pulling everything.

GAZE
- While not explicitly gaze controlled, the use of peripheral space for progressive disclosure is great.
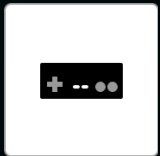
MAIN MENU

03.4 Beat Saber

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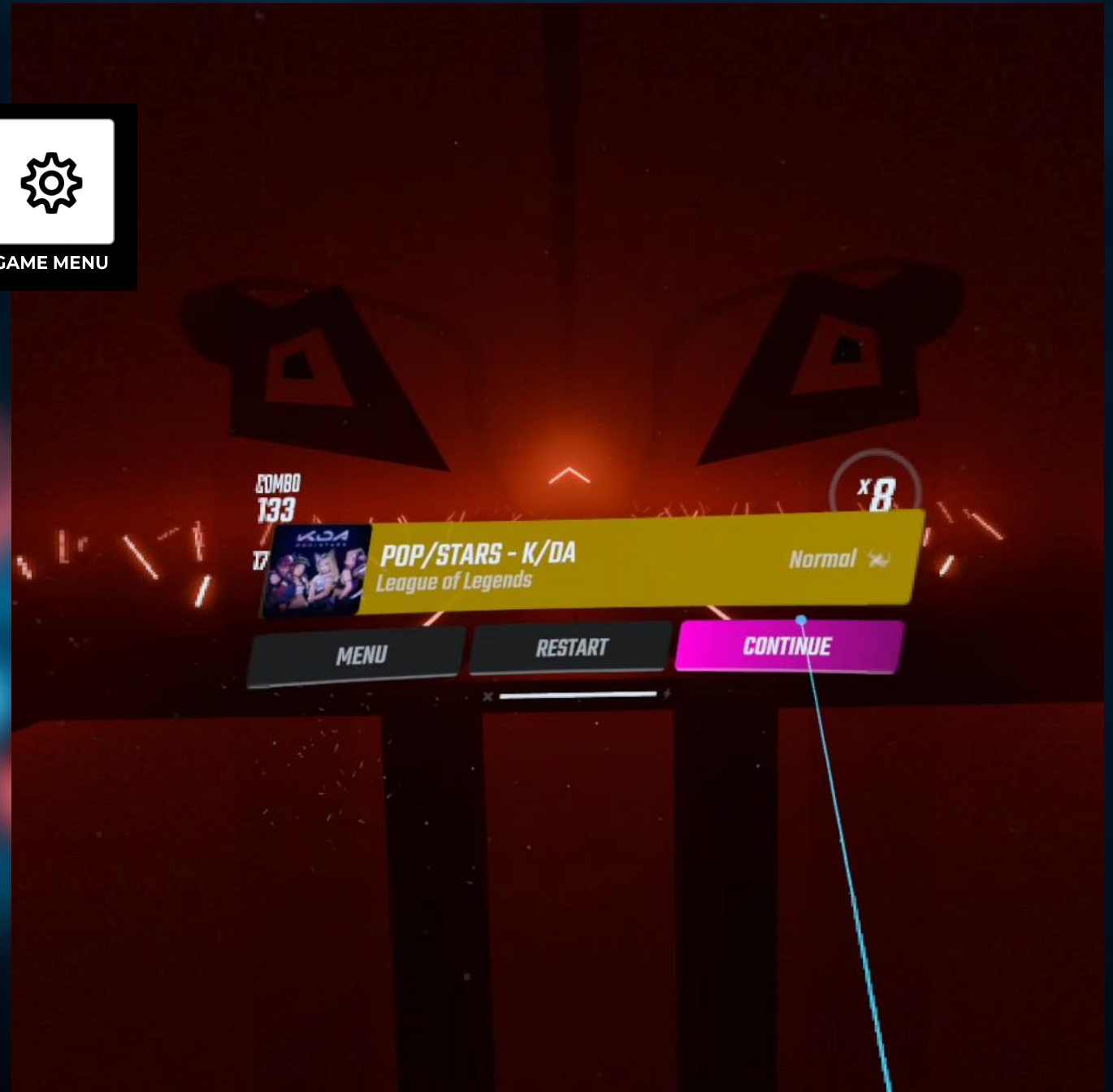- Provides a comfortable alternative to grabbing and pulling everything.

GAZE

- While not explicitly gaze controlled, the use of peripheral space for progressive disclosure is great.

GAME MENU

COMBO 133

x8

POP/STARS - K/DA
League of Legends

Normal

MENU   RESTART   CONTINUE

03.5 Half-Life: Alyx

Valve's VR return to the Half-Life series. It's the story of an impossible fight against a vicious alien race known as the Combine, set between the events of Half-Life and Half-Life 2. Playing as Alyx Vance, you are humanity's only chance for survival.

ARM

- The menus works as a series of 2.5D panels that move around in 3D space.
- Each panel has distinct content/lists.
- The collection of panels builds a larger system that takes advantage of peripheral vision and depth in space.
- Previous menus are to the left, previews are to the right and behind.
- Player never leaves the game space.

POINTER

- Each panel uses a lists with generous hit space to make it clear to navigate.
- "Back" by pressing button or aiming at previous menus.
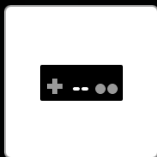
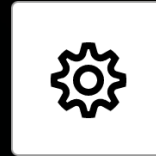**CONTROLLER**

- Analog sticks can scroll through lists.
- Standard game controller buttons can be used to navigate menus.

MAIN MENU   GAME MENU

03.6 # Asgard's Wrath

Unleash the wrath of the Gods in a mythical Norse adventure that can only unfold in VR. Forge your destiny as both a mortal hero and living god in an action role playing game of unworldly depth.
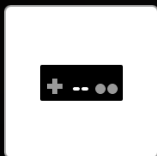
03.6 Asgard's Wrath

MAIN MENU

WALL
- Main Menu launches player into the epic fantasy and action. Lots of spectacle!
- Things feel BIG in this game, the menus help add to that sense of scale.
- Game Menu's stylized "Meta-room" underlines the fantasy and setting.
- Compelling execution of complex Action-RPG mechanics and systems.

POINTER
- Using Lists over grids with generous hit boxes makes it easy to navigate.
- Clearly defined visual clusters make it easy to navigate by pointer.

CONTROLLER
- Analog sticks can scroll grids and lists.
- Standard game controller buttons are used to navigate menus.
- In-game controllers and button legend help reveal functionality to players.

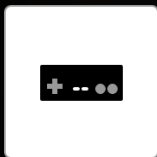# 03.6 Asgard's Wrath

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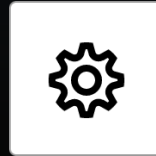- Compelling execution of complex Action-RPG mechanics and systems.

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RECIPE BOOK
— WEAPONS —

WARG'S EYE
LINDWORM'S EYE
TROLL'S EYE
15 ARROWS
35 ARROWS
15 FLAMING ARROWS

TROLL'S EYE
Legendary

Eye of a cruel troll. Crush to greatly increase your hero weapons' attacks by 50% for 10 hits.

Hacksilver: 750

RECIPE

0/1 Pungent Flesh
0/5 Dark Berries
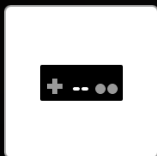
50

03.6 Asgard's Wrath

GAME MENU

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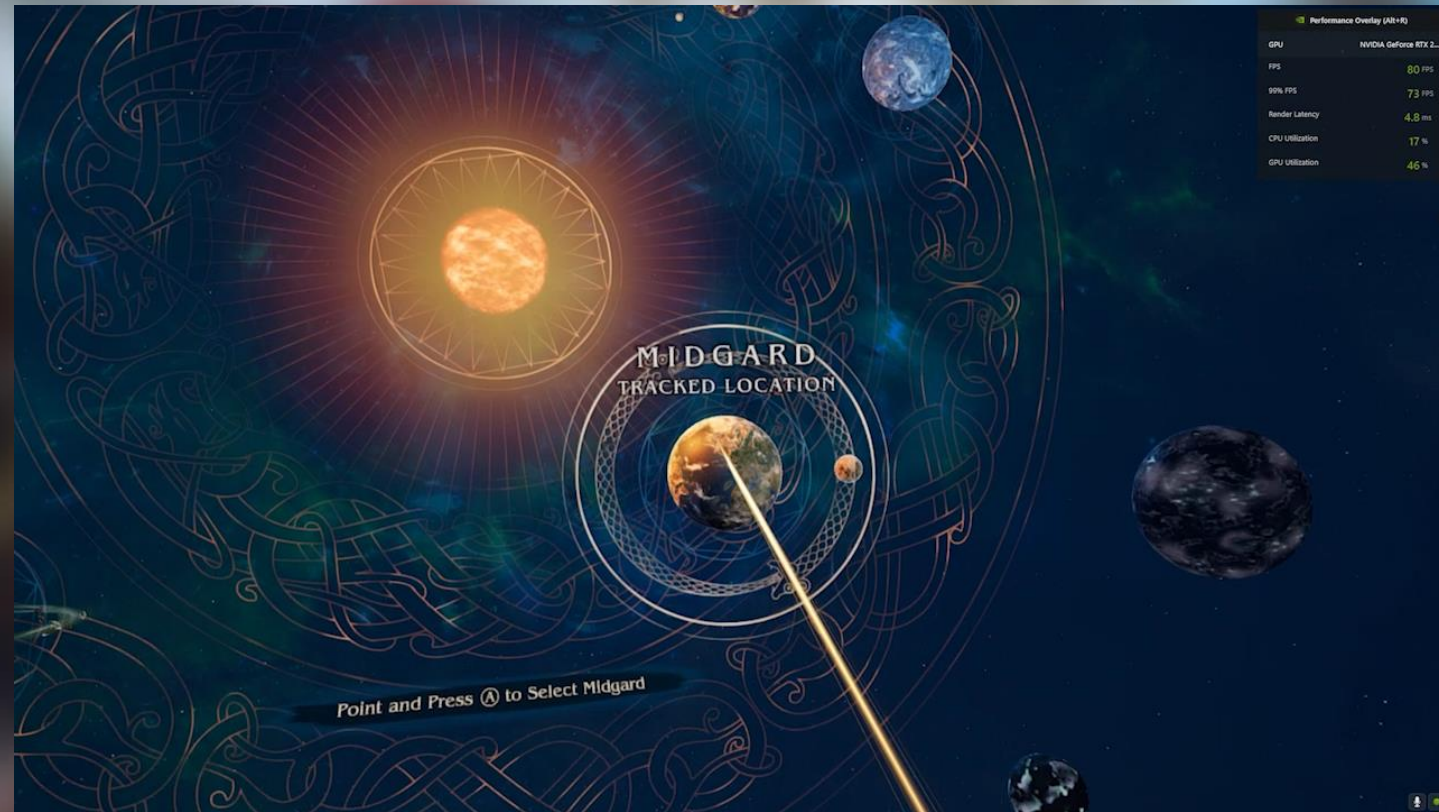- Clearly defined visual clusters make it easy to navigate by pointer.

CONTROLLER

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- Standard game controller buttons are used to navigate menus.
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MIDGARD
TRACKED LOCATION

Point and Press Ⓐ to Select Midgard

04 CONCLUSION

FORCE FIELD

CONCLUSION

With a clear taxonomy to describe UI and UX we can strategically build UI systems that facilitate the types of titles we want to create.
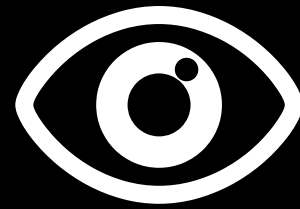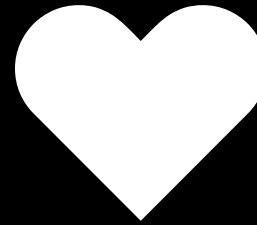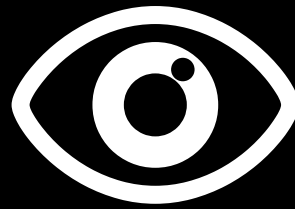
FORCE FIELD

04 CONCLUSION

With a clear taxonomy to describe UI and UX
we can strategically build UI systems that
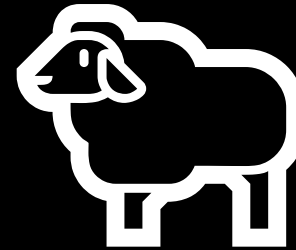facilitate the types of titles we want to create.

FORCE
FIELD

04 CONCLUSION

With a clear taxonomy to describe UI and UX work, we can logically create systems for all the types of interactive work...

CONCLUSION

With a clear taxonomy to describe UI and UX we can strategically build UI systems that facilitate the types of titles we want to create.
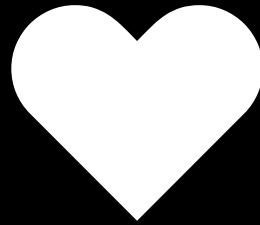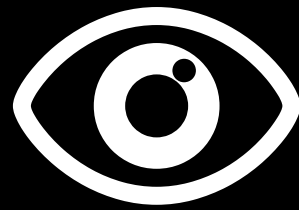
FORCE FIELD

CONCLUSION

FORCE FIELD

CONCLUSION