

# ARRAY OF BARRIERS

## Print @ Home Version

Here you have access to your own *Barrier Cards*, designed in the format of 7 x 12 cm. Just cut along their outer lines and you're good to go!

Export these A4 pages as **JPGs**, to ensure printer compatibility, and print them one-sided set to fill the whole paper.

The last page also provides you with an optional way of packaging and storing your *Array of Barriers* when not in use.

Still need the digital file?  
Use this **QR code**:



## SIMPLE CONTROLS

01 A



### PROBLEM

Players cannot use complex controls to interact with the game.

### SOLUTION

Provide the easiest controls as possible or provide options for simpler alternatives to complex control schemes. Allow players to change the controls of the game.

1.1.01

Basic Control Remapping 1.2.02

Full Actions Remapping 1.3.03

Input Flexibility 1.9.09

Inaccessible Input Methods 1.10.10

## BASIC CONTROL REMAPPING

02 A



### PROBLEM

Players cannot use the default controls to interact with the game.

### SOLUTION

Provide the option to change and reconfigure all controls so that players are able to effectively use the game or its interfaces.

1.2.02

Simple Controls 1.1.01

Full Actions Remapping 1.3.03

Sticks & Sensitivity 1.4.04

Input Flexibility 1.9.09

Recall Controls 2.8.21

## FULL ACTIONS REMAPPING

03 A



### PROBLEM

Players cannot execute actions in the game with the default controls.

### SOLUTION

Provide the option to fully change and reconfigure which action in the game is assigned to which control.

1.3.03

Basic Control Remapping 1.2.02

Sticks & Sensitivity 1.4.04

Input Flexibility 1.9.09

Recall Controls 2.8.21

## STICKS & SENSITIVITY

04 A

INPUT    

### PROBLEM

Players cannot operate thumbsticks in the way or with the precision the game requires.

### SOLUTION

Provide the option to change input directions and adjust the sensitivity of thumbstick controls, with as much granularity as possible.

1.4.04

Basic Control Remapping 1.2.02

Full Actions Remapping 1.3.03

Motion & Camera 3.7.32

## SAVING SETTINGS

05 A

INPUT     

### PROBLEM

Players cannot reconfigure control and presentation settings each time they play.

### SOLUTION

Provide saving and retaining of all settings for controls and presentation between play sessions and across different platforms, so that players do not have to repeat their setup every time they play.

1.5.05

Basic Control Remapping 1.2.02

Full Actions Remapping 1.3.03

Save & Load 2.2.15

## BUTTON MASH & HOLD

06 AA

INPUT   

### PROBLEM

Players cannot repeatedly press buttons or hold them for an extended duration.

### SOLUTION

Provide alternative input methods for rapidly repeated inputs and button holds. Ensure that these actions are not required or can be circumvented.

1.6.06

Simple Controls 1.1.01

Assistive Aim & Steer 1.8.08

Input Automation 1.13.13 Bypass & Skip 2.10.23

## SIMULTANEOUS INPUT

07 AA

INPUT   

### PROBLEM

Players cannot input multiple actions at the same time.

### SOLUTION

Provide alternative input methods for multiple simultaneous inputs and ensure that these actions are not required.

1.7.07

Simple Controls 1.1.01

Button Mash & Hold 1.6.06

Assistive Aim & Steer 1.8.08

Bypass & Skip 2.10.23

## ASSISTIVE AIM & STEER 08 AA



### PROBLEM

Players cannot input precise actions without assistance from the game.

### SOLUTION

Provide assist modes such as auto-aim for targeting or assisted steering for navigating, so players can progress the game.

1.8.08

Input Automation 1.13.13

Multiplayer Preferences 2.11.24

Navigation & Traversal 2.12.25

## INPUT FLEXIBILITY 09 AA



### PROBLEM

Players cannot use any input device to interact with the game or its interfaces.

### SOLUTION

Support more than one way of interaction with the game and all its user interface. Ensure digital inputs can be made with keyboard, mouse or controller and are compatible with assistive technology devices like eye tracking. On controllers, include a post-acceptance delay between inputs and on computers, support inputs made through virtual keyboards in windowed mode.

1.9.09

Basic Control Remapping 1.2.02

Full Actions Remapping 1.3.03

Inaccessible Input Methods 1.10.10

Error Prevention & Forgiveness 2.5.18

## INACCESSIBLE INPUT METHODS 10 AA



### PROBLEM

Players are unable to use speech, touch, motion or gesture inputs to play the game.

### SOLUTION

Ensure that all user interface and key actions in the game can be input with digital controls, and that any speech, touch, motion, or gesture inputs are not required, only optional and supplementary.

1.10.10

Simple Controls 1.1.01

Input Flexibility 1.9.09

## HAPTIC FEEDBACK 11 AA



### PROBLEM

Players are unable to take in information solely by visual or audible cues alone or cannot use haptic feedback at all.

### SOLUTION

Provide haptic feedback for players to convey information, additionally to visual or audible cues. Ensure that haptic feedback can be adjusted or disabled.

1.11.11

Input Flexibility 1.9.09

Visual Cues 3.3.28

Audio Cues 4.4.40

## EASY COMMUNICATION 12 AA



### PROBLEM

Players cannot communicate with other players via text or speech.

### SOLUTION

Provide visual means of communicating with other players, either through symbol-based chat, character emotes or through environmental pings and markers within the game environment.

1.12.12

Multiplayer Preferences 2.11.24

Text Chat & Speech-to-Text 3.9.34

Voice Chat & Text-to-Speech 4.5.41

## INPUT AUTOMATION 13 AAA



### PROBLEM

Players cannot input a specific sequence of actions required by the game.

### SOLUTION

Provide an option to automate complex sequences of actions and be activated by a single button press or input.

1.13.13

Button Mash & Hold 1.6.06

Simultaneous Input 1.7.07

Assistive Aim & Steer 1.8.08

Bypass & Skip 2.10.23

## DIFFICULTY SETTINGS 14 A



### PROBLEM

Players cannot progress through challenges in the game due to the difficulty.

### SOLUTION

Provide a multiple difficulty levels with detailed assistive options, which can be altered anytime during gameplay, either through settings or adaptive difficulty. Offer at least one difficulty that reduces the intensity of challenges and clearly describe what the differences between difficulty levels are.

2.1.14

Game Speed & Time Limits 2.9.22

Bypass & Skip 2.10.23

## SAVE & LOAD 15 A



### PROBLEM

Players have already completed a challenge and do not want to repeat it.

### SOLUTION

Provide manual saving of progress at any time as well as an autosave feature. Show thumbnails of the gameplay with the saves and let the players load into the same spot and resume.

2.2.15

Saving Settings 1.5.05

Error Prevention & Forgiveness 2.5.18

Narrative 2.7.20

## USER INTERFACE

16 A



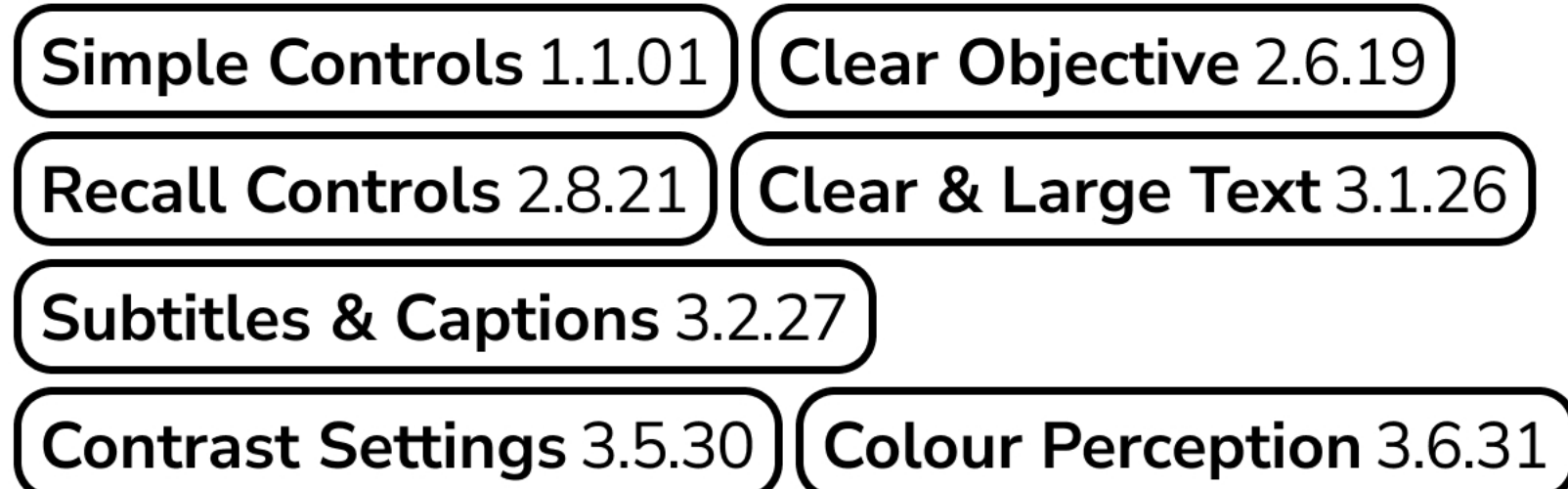
### PROBLEM

Players cannot interpret and navigate the user interface easily.

### SOLUTION

Provide simple, clear and consistent user interface navigation throughout the whole game. Ensure that players have adequate time to read, interpret, and interact with any user interface or let progress through it at their own pace. Keep the number of menus to start the game at a minimum.

2.3.16



## TUTORIAL & TRIAL

17 A



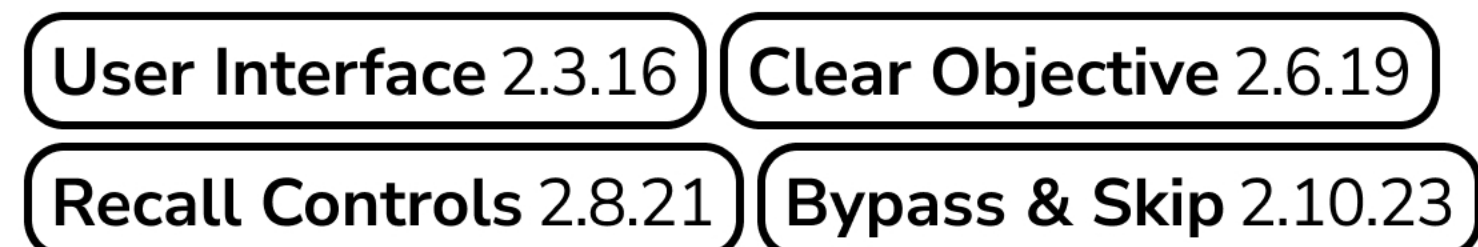
### PROBLEM

Players cannot gain familiarity or the required skill with challenges in the game without failure.

### SOLUTION

Provide interactive tutorials with instructions on screen, to gradually introduce new concepts and let players practice without failure. Ensure that all instructions can be replayed and provide reminders of the controls.

2.4.17



## ERROR PREVENTION & FORGIVENESS

18 A



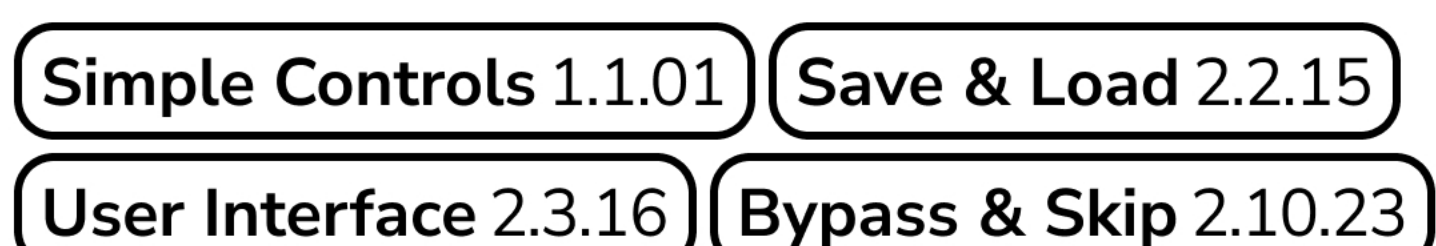
### PROBLEM

Players are not prevented from making mistakes or not able to reverse errors while playing the game.

### SOLUTION

Provide the option to reverse or undo errors in the game. Use clear language and confirmation steps when it comes to irrevocable or important decisions.

2.5.18



## CLEAR OBJECTIVE

19 AA



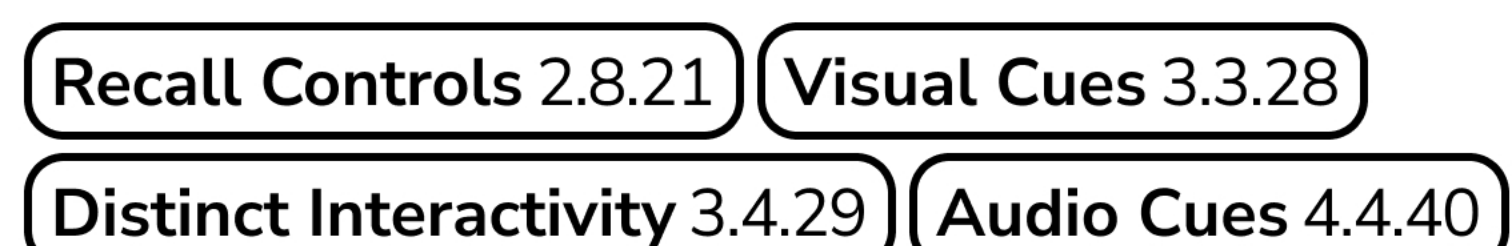
### PROBLEM

Players cannot identify, retain or recall what the objective in the game is.

### SOLUTION

Provide sufficient information in form of indicators and reminders within the players view so they always know which goal or current objective they are supposed to be working toward. Ensure that interactive elements are clearly identifiable and provide an option to hide all non-interactive elements.

2.6.19



## NARRATIVE

20 AA

GAMEPLAY  

### PROBLEM

Players cannot retain or recall what the narrative in the game is.

### SOLUTION

Focus on a simple and clear narrative structure and in long and complex narratives, provide an option to bring up information and summaries of the narrative and its progress. Ensure that understanding the narrative is not conditional to progress the game, allow narrative elements to be replayed and show thumbnails of the gameplay with game saves.

2.7.20

[Save & Load 2.2.15](#) [Clear Objective 2.6.19](#)

## RECALL CONTROLS

21 AA

GAMEPLAY    

### PROBLEM

Players cannot retain or recall the controls of the game or how to use its interfaces.

### SOLUTION

Provide contextual in-game reminders, hints and guidance to controls as well as an option to bring up information on game controls, so players can review and refresh their knowledge. Gradually introduce new concepts and ensure players have enough context to understand their components and functions.

2.8.21

[Simple Controls 1.1.01](#) [User Interface 2.3.16](#)

[Tutorial & Trial 2.4.17](#) [Clear Objective 2.6.19](#)

## GAME SPEED & TIME LIMITS

22 AA

GAMEPLAY    

### PROBLEM

Players cannot progress through the game due to the speed, amount and variety of events or due to time limits.

### SOLUTION

Provide the option to modify or slow down the game speed, the amount and variety of events or time limits. Alternatively, offer bypassing these challenges so players can continue to progress the game.

2.9.22

[Difficulty Settings 2.1.14](#) [Bypass & Skip 2.10.23](#)

## BYPASS & SKIP

23 AA

GAMEPLAY    

### PROBLEM

Players cannot successfully complete a part of a game to progress further.

### SOLUTION

Provide an option to skip non-essential gameplay sections of a game. Offer settings to reduce needed actions and avoid requiring precise timing.

2.10.23

[Button Mash & Hold 1.6.06](#)

[Assistive Aim & Steer 1.8.08](#)

[Input Automation 1.13.13](#)

[Difficulty Settings 2.1.14](#)

## MULTIPLAYER PREFERENCES

24 AA



### PROBLEM

Players cannot choose to play with teammates or opponents with similar skills or preferences.

### SOLUTION

Provide an option to be set for multiplayer to play with or without players in the same skill level or using the same features, like communication settings or assistive features which could give a competitive advantage.

2.11.24

Assistive Aim & Steer 1.8.08

Difficulty Settings 2.1.14

Text Chat & Speech-to-Text 3.9.34

Voice Chat & Text-to-Speech 4.5.41

## NAVIGATION & TRAVERSAL

25 AAA



### PROBLEM

Players cannot navigate or traverse the game environment on their own.

### SOLUTION

Provide a navigation assist which quickly orients players into the direction of key or narrative objects. Alternatively, offer an optional sonar-like pulse that visually and audibly pings objects, enemies or points of interest. Another option is a voiced overview which describes nearby points of interest, similar to a GPS.

2.12.25

Assistive Aim & Steer 1.8.08

Clear Objective 2.6.19

Visual Cues 3.3.28

Audio Cues 4.4.40

Audio Description 4.7.43

## CLEAR & LARGE TEXT

26 A



### PROBLEM

Players cannot easily read and understand text displayed within the game or interfaces.

### SOLUTION

Provide an easily readable default font size with simple, clear language and text formatting. Allow text to be adjusted in font size, colour, and contrast. Highlighting important words can help convey or focus on important information.

3.1.26

Subtitles & Captions 3.2.27

Contrast Settings 3.5.30

Colour Perception 3.6.31

Different Displays 3.8.33

## SUBTITLES & CAPTIONS

27 A



### PROBLEM

Players cannot hear or follow dialogue and events in the game by audio alone.

### SOLUTION

Provide subtitles and captions for all important and supplementary speech or significant background sounds. Present any additional audio-based information, such as the speaker or audio source, in text or visuals. Ensure subtitles and captions are clear, easy to read, and can be enabled and customized before any important audio plays. They should also be adjusted to an appropriate words-per-minute.

3.2.27

Clear & Large Text 3.1.26

Contrast Settings 3.5.30

Colour Perception 3.6.31

Audio Description 4.7.43

## VISUAL CUES

28 A



### PROBLEM

Players cannot rely on or aren't able to take in information from game audio alone.

### SOLUTION

Provide visual cues such as distinct symbols with colours for relaying essential information in addition to audible cues. Ensure that nothing is conveyed by colour alone and allow modification of these visual cues in terms of colour, size and visibility.

3.3.28

Haptic Feedback 1.11.11

Distinct Interactivity 3.4.29

Contrast Settings 3.5.30 Colour Perception 3.6.31

Audio Cues 4.4.40

## DISTINCT INTERACTIVITY

29 AA



### PROBLEM

Players cannot reliably identify which elements in the game are interactive.

### SOLUTION

Provide clear visual or audible indication on elements which are interactive. Allow modification of the presentation of said indicators so players can reliably distinguish between game elements.

3.4.29

Haptic Feedback 1.11.11

Clear Objective 2.6.19

Visual Cues 3.3.28

Contrast Settings 3.5.30

Colour Perception 3.6.31

Audio Cues 4.4.40

## CONTRAST SETTINGS

30 AA



### PROBLEM

Players cannot identify and distinguish between visual elements and their background due to a lack of contrast.

### SOLUTION

Provide an option to adjust the contrast of all game elements in relation to their background, or enable a high-contrast mode that uses alternative assets with different, more contrasting colours.

3.5.30

Clear & Large Text 3.1.26

Subtitles & Captions 3.2.27 Visual Cues 3.3.28

Colour Perception 3.6.31

## COLOUR PERCEPTION

31 AA



### PROBLEM

Players cannot reliably identify and distinguish between colours in the game.

### SOLUTION

Provide the option to change or select colours on all key game elements. Ensure that colour is not used to communicate important information alone and is supplemented by shapes, icons or text.

3.6.31

User Interface 2.3.16

Visual Cues 3.3.28

Contrast Settings 3.5.30

## MOTION & CAMERA

32 AA



### PROBLEM

Players cannot view the game without experiencing discomfort or harm.

### SOLUTION

Provide an option to adjust camera movement speed, as well as to disable or change the intensity of any camera effects, such as shaking, swaying, bobbing, motion blur, or any unexpected movements. Provide an option to disable any background movement and flickering images or repetitive patterns.

3.7.32

Simple Controls 1.1.01 Sticks & Sensitivity 1.4.04  
Sensitive Content 3.10.35

## DIFFERENT DISPLAYS

33 AA



### PROBLEM

Players cannot use standard displays or use the user interface due to size and layout to access game information.

### SOLUTION

Support the use of different displays with different sizes or resolutions, and both portrait and landscape orientations. Allow all interfaces to be resized, rearranged or hidden if necessary. Ensure that field of view settings have an appropriate default setting which can be adjusted.

3.8.33

Clear & Large Text 3.1.26  
Subtitles & Captions 3.2.27  
Multiple Audio Channels 4.2.38

## TEXT CHAT & SPEECH-TO-TEXT

34 AA



### PROBLEM

Players cannot access or interact with what is written or spoken in chats.

### SOLUTION

Provide text and voice chat for multiplayer games, with real-time speech-to-text transcription. This barrier has a similar counterpart in auditory features.

3.9.34

Easy Communication 1.12.12  
Multiplayer Preferences 2.11.24  
Multiple Audio Channels 4.2.38  
Voice Chat & Text-to-Speech 4.5.41

## SENSITIVE CONTENT

35 AAA



### PROBLEM

Players cannot engage with sensitive content.

### SOLUTION

Provide an option to disable sensitive content, like violence, profanity, blood and gore, sexual themes or other emotional content which might elicit a strong emotional reaction. Ensure that the core function of game elements remains still identifiable.

3.10.35

Bypass & Skip 2.10.23  
Multiplayer Preferences 2.11.24  
Motion & Camera 3.7.32 Audio Cues 4.4.40

## SIGN LANGUAGE

36 AAA



### PROBLEM

Players cannot access the audio of the game and rely on subtitles alone.

### SOLUTION

Provide an option sign language for scripted in-game cutscenes or pre-recorded video sequences. Note, that sign language requires localization and has vast regional differences.

3.11.36

[Narrative 2.7.20](#) [Subtitles & Captions 3.2.27](#)

## SEPARATE VOLUME CONTROLS

37 A



### PROBLEM

Players cannot reliably take in, understand and distinguish information within the game audio.

### SOLUTION

Provide separate volume controls for music, dialogue, sound effects, audio cues, voice chat, narration and voice-over in one control panel.

4.1.37

[Multiple Audio Channels 4.2.38](#)

[Distinct Audio 4.3.39](#) [Audio Cues 4.4.40](#)

## MULTIPLE AUDIO CHANNELS

38 AA



### PROBLEM

Players cannot choose, in which configuration they can hear the game audio.

### SOLUTION

Provide options to set the audio to either mono (send all audio to a single channel), stereo (split sounds between the left and right channels, depending on their direction), or surround sound (precisely indicate where a sound is coming from through spatial audio).

4.2.38

[Different Displays 3.8.33](#)

[Separate Volume Controls 4.1.37](#)

## DISTINCT AUDIO

39 AA



### PROBLEM

Players cannot reliably distinguish and understand information within the game audio.

### SOLUTION

Provide distinct sounds sound and music choices for each object and event and keep background noise to a minimum during speech.

4.3.39

[Separate Volume Controls 4.1.37](#)

[Multiple Audio Channels 4.2.38](#)

[Audio Cues 4.4.40](#)

## AUDIO CUES

40 AA



### PROBLEM

Players cannot rely on or are not able to take in information from game visuals alone.

### SOLUTION

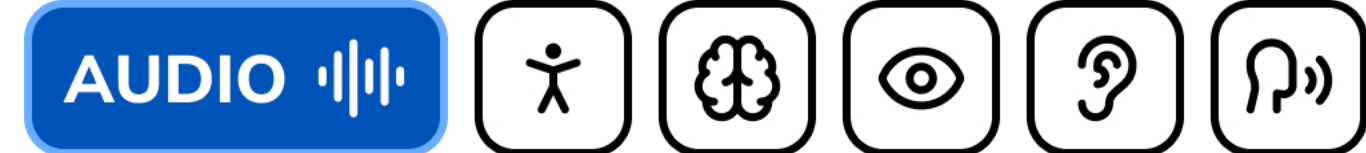
Provide audio cues such as distinct sounds or spoken audio for relaying essential information in addition to visual cues.

4.4.40

- Haptic Feedback 1.11.11
- Visual Cues 3.3.28
- Separate Volume Controls 4.1.37
- Multiple Audio Channels 4.2.38

## VOICE CHAT & TEXT-TO-SPEECH

41 AA



### PROBLEM

Players cannot access or interact with what is written or spoken in chats.

### SOLUTION

Provide voice and text chat for multiplayer games, with real-time text-to-speech narration. This barrier has a similar counterpart in visual features.

4.5.41

- Easy Communication 1.12.12
- Multiplayer Preferences 2.11.24
- Text Chat & Speech-to-Text 3.9.34
- Separate Volume Controls 4.1.37
- Multiple Audio Channels 4.2.38

## NARRATED SCREENS

42 AAA



### PROBLEM

Players cannot experience, understand or use the game without needing to see the text.

### SOLUTION

Support screen reader for all text and menus, on all devices and multiple languages. Ensure, that players can navigate and cycle through the available items one at a time, while interactions, context and focus changes are announced through narration. If screen reader support is not possible, at provide pre-recorded voiceovers for all texts or menus.

4.6.42

- Separate Volume Controls 4.1.37
- Multiple Audio Channels 4.2.38
- Audio Description 4.7.43

## AUDIO DESCRIPTION

43 AAA



### PROBLEM

Players cannot experience visually, what is happening on screen.

### SOLUTION

Provide audio description to communicate key visual information that is not available through sound, such as actions, facial expressions, character appearances, environments and focus on the most important details. While real-time gameplay can be difficult to describe, a good start are cut-scenes and scripted cinematic moments.

4.7.43

- Separate Volume Controls 4.1.37
- Multiple Audio Channels 4.2.38
- Narrated Screens 4.6.42

**Optional Packaging**

Size intended for *Barrier Cards* printed on 80-90 g/m<sup>2</sup> office paper.

Instead of using the loops, you can use tape to close the packaging.

 **Fold here**

 **Cut here**



# ARRAY OF BARRIERS

Barrier Cards