# GAME KIT CONTROLLER

# CHANGELOG Version 2.4c

## Content

# LOG 1.0 WHAT IS NEW IN THIS VERSION

- Walk and run in any surface
- Camera collision detection
- Move in the air to search a new surface
- Accelerate your movement in the air
- Circumnavigate spheres or regular surfaces
- Run while you adhere to any surface
- Grab and carry objects to drop or throw them
- Physics-based controller
- New menu with Unity UI
- Multi screen resolution
- Touch buttons and joysticks ready to use
- Change between first and third person view
- New first person character added without animator or mecanim needed
- Save/load and edit touch buttons positions
- Time bullet ability
- Fully commented C# code and documentation

# LOG 1.5 WHAT IS NEW IN THIS VERSION

- **First person mode added**, now there are two controller, the third person which can change the camera in run time from third to first view and vice versa and the first person which has the same scripts but without the Mecanim, animator and other stuff.
- **Touch controls added**, now you can test this asset in a touch device with the new control system with touch joysticks, very customizable. You can change the control system in the editor and in run time in pc and in your touch device. The joysticks are adjusted automatically to any screen size. The touch controls can be used in editor mode with the mouse, which simulates a finger tap. Also in run time you can change between them and keyboard controls.
- **New menu and HUD with touch buttons**, using the UI of unity 4.6, to add the new options and make the interface adjusts automatically to any screen size.
- **HUD buttons can be moved in run time in pc and smartphones**, to adjust their positions as you want and **that configuration is saved in a file**, so the new positions will be charged in the next execution in the editor mode and smartphones.
- **Minor fixes and improvements.**

# LOG 2.0 WHAT IS NEW IN THIS VERSION

- Like 3rd shooter aim mode
- Shoot energy, grenades, black holes, push objects, slow down the movement of objects and enemies and joint objects
- Close combat system with kicks and punches
- Change left or right side to aim
- Change between powers with the mouse wheel and the numeric keyboard
- Grab objects in aim mode and drop, throw or change their gravity
- Protect from enemies with a shield and catch and throw enemies shoots with it
- Displace objects on rails
- Deflect and project laser with different colors, and use them as weapons
- Connect different devices using lasers
- Improved HUD with regenerative health and power system
- Signaling targets with in screen icon
- Easy customizable powers system
- Particles added to every power
- Ragdoll to mecanim and vice versa
- Enemies and objectives radar system
- AI Enemy turrets with different weapons
- Hackable turrets by sneaking or slowing down to make them your allies, to grab and set them in any surface
- Quick Time Event to hack turrets and devices
- Health bars above enemies and allies
- Arrow icon to show the direction of enemies attacks and screen fading for damage
- Swipe in touch devices to change between powers and to hack enemies
- Footsteps audio system with ground physics detection
- Zoom mode and move away the camera

# LOG 2.3 WHAT IS NEW IN THIS VERSION

- Improved footsteps system, with mesh and terrain texture detection and random pool of sounds, using triggers and/or raycast
- Editable key controls in game and in editor mode, with the option to save/load them
- Unified keyboard and touch controls, very configurable and customizable
- Improved power system, more configurable
- Editable key numbers powers (drag and drop)
- Selectable power by rotating the mouse
- Fixed the locked cursor in unity 5
- Fixed an issue in editing touch buttons positions
- Fixed an issue with the footsteps being disabled by the ragdoll wizard
- Code terminals using UI
- Computer terminal using UI
- Text devices using UI
- Three new powers: Implosion grenades, multiple trackable shooting objectives and change general level gravity
- Use the accelerometer to help to improve the aim mode camera
- Scanner visor to know more info about an object or an enemy and database of scannable objects
- Pickable health and power objects with icons and info in screen
- Headbob system with states
- Improved laser, with reflections in other surfaces
- Fall damage
- Set in the editor if the game starts in third person view or first person
- Double jump
- Camera collision in aim mode improved
- Gravity control system very improved, now the player can move while he searchs a new surface
- Chest with pick ups
- Features manager inspector to enable and disable every feature of the asset
- Smart use of the mouse cursor
- Procedural and very customizable door system, with different ways to open them
- Option to disable the animator in first person mode
- Select if the player uses animations or ragdoll when he dies

The first person prefab from version 2.0 has been removed, because the current controller has the same features in third and first person mode, allowing also start the game in any view mode.

# LOG 2.3.5 WHAT IS NEW IN THIS VERSION

- Change between joysticks and touchpad in touch controls
- IK used in arms to aim, very easy to configure
- Aim collision detection for arms
- HUD system with health, power and weapons for player and vehicles
- Procedural Ragdoll
- Improved build player, set your model in less than 40 seconds
- Holographic doors
- Physics Vehicles system very configurable, with cars and motorbikes
- Vehicles can jump, break, boost, change camera between third and first person and move away the camera
- Regenerative health and energy for vehicles
- Accurate damage detection in vehicles
- Vehicles can be grabbed by the player, dropped and thrown or change their gravity
- When player gets off from the vehicle, his gravity is the same as the vehicle
- Vehicle obstacle detection when player gets off
- Choose side to get off from vehicles
- Set if player is ejected or he dies when vehicles explode
- Weapons system for vehicles easily configurable
- 8 types of weapons added for vehicles: machine gun, cannon, laser, homing missiles, implosion grenades, double machine gun, barrel launcher, seeker missiles
- The barrel launcher describe parables in any surface and direction
- Enemy detection when player drives
- First and third view in vehicles
- Vehicles control for touch devices
- New interaction with devices and descriptive action of them
- Slopes walking improved
- IK, weapons and gravity control system for vehicles
- No animations needed to drive
- Health, energy and ammo pickups for player and vehicles
- Now, you can hack any enemy or device
- Procedural doors and elevators system
- Explosive barrels with pickups dropping
- Recharger stations for health and energy
- Security cameras with controls and zoom
- New holographic doors
- New power, change position with another object
- Sounds for most of the systems
- Lot of fixes, improvements and code optimization

# LOG 2.3.55 WHAT IS NEW IN THIS VERSION

Just some minor fixes and improvements:

- Input Manger now has more editor options, like add new axes, and the options to set the default input, save and load works perfectly. Also, its code has been improved and simplified.
- Every custom editor button has been fixed. Now the changed values by these buttons are correctly stored and changed when the game is played.

# LOG 2.3.6 WHAT IS NEW IN THIS VERSION

This is the biggest update ever for this asset and there is a lot of new features. Also, a lot of parts has been remade or amply modified. Here the full list of features for this update:

- PLAYER
  - o Any number of extra jumps
  - o Steps particles and footprints
  - o Ragdoll when character dies or receive damage higher than x
  - o IK for powers, weapons, vehicles, ….
  - o Land mark on player's feet
- CAMERA SYSTEM
  - o Shake on damage
  - o Headbob with states and external shakes
  - o Static and dynamic headbob
  - o Fixed camera positions with option to follow player (alpha)
- HEALTH SYSTEM
  - o Damage screen with fade color and damage position icons
  - o Damage and heal numbers in screen
  - o Advanced damage detection for characters, vehicles, ….anything
  - o Configure weak spots, damage multipliers and one shoot killed zones
  - o Complete editor to configure easily damage receivers
- INPUT
  - o Unified keyboard, touch and  gamepad input
  - o Enable or disable every action
  - o Gamepad support with movable mouse cursor
  - o Very customizable touch controls and editor configuration
  - o Configurable path to save input, saves, captures, etc….
- PLAYER WEAPONS
  - o Extensible and very customizable player weapon system
  - o Fire in First and third person
  - o Advanced use of IK: No animations needed
  - o Full weapon HUD
  - o Change between weapons in any camera view
  - o Separated camera for weapons in first person
  - o Draw, walk, aim and keep weapon actions
  - o Insane amount of configurations
  - o Procedural weapon sway and motion
  - o Realistic physics projectile shells
  - o Insane amount of options to shoot: spread, projectiles per shoot, clip size, bullet speed, bullet force amount, explosion radius,
  - o Camera shake for every fired projectile
  - o Smooth transition in weapon change, camera fov aiming, …
  - o Procedural weapon recoil

- o 5 different weapons: pistol, regular shotgun, assault rifle, double shotgun and missile launcher
  - o Pick and drop weapons ingame
  - o Decals manager
  - o Weapon and ammo pickups
- INVENTORY
  - o Powerful inventory system
  - o Pick, drop, use, lock or read info for every inventory object
  - o Use objects by menu, interaction button or trigger
  - o Animation in objects used
  - o Complete custom editor system to configure every object added
  - o Any number of slots and amount of objets per slot
  - o  Smart inventory management
  - o Lock, rotate and zoom in every 3d model object in game
  - o Easy capture manager: Use actual 3d model images
  - o Increase inventory size in game with bags
- VEHICLES
  - o Hovercraft, aircraft, hoverboard, sphere mode and weapon turret.
  - o Camera states, set any number of camera positions
  - o Hoverboard waypoint system
  - o Skids manager for vehicle wheels
  - o Advanced input setting for vehicles
  - o Shake states on damage, accelerating, shooting, ….
- MAP SYSTEM
  - o Procedural map builder, any shape is possible
  - o Configure different floors and rooms
  - o Map menu: change between floors, zoom, icons info, …
  - o Place and remove map marks ingame
  - o Configure easily any type of map icon: enemies, doors, elevators, vehicles,….
  - o Map beacons and quick travel stations
  - o Set map zones as hidden to be revealed when player reaches them
  - o Unlock map parts with map pickups
  - o Configure map zone color and map room texts
  - o Map glossary according to map icons configured
  - o Compass with 8 directions
- PICKUPS
  - o Full pickup system for ammo, inventory, weapons, …
  - o Powerful pickup manager: configure once, use anywhere
  - o Breakable crates
  - o Pickup drop system for crates, dead enemies, explosive barrels, ….
  - o Pickup chests with configurable object spawn position
  - o Random amount of pickups in drop system and chests
- INTERACTION ELEMENT IN SCENE
  - o Buttons

- o Procedural doors
- o Procedural elevator
- o Hackable password panels
- o Ziplines
- o Jump platforms on trigger and on button pressed
- o Pressure plates, activate them with weight
- o Wayoint moving platforms
- o Heal and damage triggers
- o Falling platforms
- o Teleportation platforms
- o Player waypoint system, reach every point in the path!
- o Vending machines, instantiate anything
- GRAVITY
  - o Change gravity for any object
  - o
- PLAYERS MODE
  - o Normal, jetpack, sphere controller and fly
- AI
  - o Nav mesh AI system
  - o AI can use weapons
  - o Advanced waypoint patrols
  - o Find friendly AI and give orders: wait, follow, attack and hide
  - o Ragdoll when dead or damage received higher than x
  - o Footstep system with particles and footprints
- SAVE SYSTEM
  - o Configure any number of slots
  - o Save with time played, camera capture, date and other game info
- OTHERS
  - o Event trigger system, call any amount of functions when player picks a weapon, lock a room when he enters, ….everything you need
  - o Physics system to grab, rotate, zoom, drop and throw objects.
  - o Create any system with health and destructible, like a rotating laser trap!
- POWERFUL CUSTOM EDITOR
  - o Most systems have an advanced editor allowing a perfect workflow.
  - o Editable list: change order, remove, add, clear,….
  - o Tag and layer manager: add and remove as you need, import project is not a problem anymore

# LOG 2.3.6a-b WHAT IS NEW IN THIS VERSION

Some improvements and fixes and a better Character Creator with a custom Editor Window.

# LOG 2.3.7 WHAT IS NEW IN THIS VERSION

Some improvements, fixes, deep changes in some systems and preparations for a better AI and more interactions with it:

- New shake camera system with states and triggers
- More grab objects modes
- Basic close combat system for AI
- Weapons disabled correctly when the game starts, allowing to pick up them in the game
- Combat system code improved
- Input manager improvements and the touch joysticks now use the UI system
- Better map system creator, allowing to edit every part of the map easier
- Rotation in the player's spine now works better with any model
- Auto shot for weapons and powers by a tag and layer list
- Jump platforms don't keep the player's weapon
- Crates and explosive barrels drop objects correctly when they break by an impact
- Character creator fixed for unity 5.6 and 2017
- More configurable health component
- Pickups usable by AI (only health for now)
- Player powers much more customizable, with a lot of projectile physics options
- Weapons for player and vehicles which apply force in any direction for them
- Power projectiles easy to use with option to add extra abilities easily

# LOG 2.3.8 WHAT IS NEW IN THIS VERSION

Huge improvements, fixes, deep changes in some systems and preparations for a better AI and more interactions with it.

Also, locked camera, redone AI with same components that player, new examination objects system, better devices interaction, new decals manager and more.

Locked camera system

- This system allows to change from free camera (in first or third person) to a fixed camera position in a very similar style to resident evil 1-3 and code veronica, allowing to configure the camera to look at the player or make smooth transitions.
- Start the game with a selected locked camera, so if your game uses only that kind of cameras, you only need to select the camera to start and add the player which uses it.
- Enable or disable the camera shakes (when player fires, receives damage, explosions, etc...) in locked camera.
- In this view, the player is able to use his powers/weapons, using the mouse to aim.
- The camera can also follows player position in a fixed angle and direction.
- Also, the input direction from free to locked camera is very smooth, avoiding that kind of awkward or weird controls that sometimes make the player to move in the wrong direction. Like this, the previous input direction is applied while the still moving and changed to the new fixed camera direction when he moves again.
- This kind of control will allow to make games with fixed camera positions like resident evil, silent hill, dino crisis,....any kind of "terror" or thriller game where camera position is important, allowing to use weapons with accurate aiming. It will be finished very soon and included in this update.
- When camera is back to free control, it takes the last locked camera direction and rotation, for a smoother transition.
- Even if the player is in first person, when the locked camera state is actívate, the camera is set to third view.
- Also, a tank control mode option has been added when the camera is locked, so you can move according to camera direction or with this tank control. This controls uses a new layer in animator.

New AI

- The AI have had a lot of changes in its code, using now the same scripts that the player already uses (with minimal changes). Like this, it will be easy to manage all the controller code, and every improvement done to the player controller will be in the AI as well without need to change more scripts.
- This will make everything in the AI better for me and other users. This will also, allow to have the same options for the ai that the player has, like a full weapon system (right now the AI can only had a weapon), ability to enter and exit from vehicles, to use all pickups (right now the AI can only use the health), use the zip line, ..... anything.

- Debug options for weapons in the ai, to change between them, drop, draw or aim in play mode.

Exanimate objects and use devices system

- Improved system to use electronic devices, like computers, code terminals, etc.…
- Also, now you can exanimate objects which are moved toward the camera, allowing to rotate it, change the zoom and press any object on it to activate secondary functions. And of course, it works in first and third person.
- The icon in screen to interact with objects has an option to place this icon in any place you need, along with an offset.

Devices

- In the code terminal and computers, you can use the actual pc keyboard to write the passwords or any text (this option can be enabled or disabled). It will come handy for a future feature for console commands and a system which allows to give orders by text, like "open a certain door", "send this object here", "turn off the lights in that room", etc...
- This system allows to configure a list of certain keys which can be used, for example you can only add numbers and letter but not symbols.

Scanner system

- The scanner system has had a good code improvement and now has an option to show the weak spots of an npc (no matter if it is humanoid or not), using the health component and the weak spots configured on it.
- It is similar to fallout, to show every weak spot in an npc, in that case the numbers shown are the damage multiplier of every spot, due to the player is already seeing the remaining health of that npc (and the current health system is not made to separate health amounts between the body parts, at least, not yet). This elements are visible in the scanner mode, but maybe I will make a separated system for it.

Vehicles

- New IK option to make the player head look to any direction configured, allowing a better player configuration in vehicle seat.
- Much better regenerative health and energy option for vehicles.
- Vehicles can be destroyed in the inspector for debug.

Custom editor

- Handles.FreeMoveHandle added in every custom editor which uses waypoints or empty transform to configure positions, like the map creator system, the path to draw and keep weapons, waypoint platform system, ai patrols, etc.... allowing to configure these elements much more quicker (without need or select a certain point, just the general element which uses it). Also, you can undo or redo these actions with ctrl + z / ctrl + y.
- More custom editor inspector added to most of the components, to allow a better and easier configuration.

Powers

- New improvements over the power system, in a very similar way to the weapons, allowing to configure a huge amount of options, like if the power shoots a projectile or not, if the player shoot automatically or not, the fire rate, damage, speed, if the projectile seeks a target, particles, sounds for shooting, impact, if it is explosive, implosive, the radius of damage, time to disable, the force mode type, scorch, etc...
- Also, it allows to add especial abilities to a power projectile, for example the power to make a black hole or slow down an enemy, is now an ability added to a projectile by a separated script, so you can create and add new behaviors easily, making the system more general and easy to use. Also, now it can be configured an auto shoot for weapons and powers using tag and layers.
- Much better regenerative energy options

Weapons

- Sight/cursor configurable for every system used for the player to fire, like the weapons, powers and grab/carry/drop objects, being separated cursor customizable for every system.
- The weapon system in the player has a lot of new physics options (like the previous info about the powers), like if the projectile apply force in the collision, the force mode, if it is explosive, implosive, seeker, homing, etc...(this new projectile system will be applied to vehicles too) and I am finishing the decal system to being able to configure a list of surfaces, with its impact sound, particles, scorch, fade time and a lot more of options and then in any surface set the type of decal that it will use, like flesh, metal, concrete, wood, etc... (there is a default value to avoid configure every surface).
- Also, it can be configured if the player drops the current weapon that he is using or all the weapons that he has when he dies, along with a lot of code simplification and improvement in the weapons.
- Now, you can start the game with the player drawing a weapon, and also, you can select if he uses the first one available or a certain weapon.
- Option to add force to player or vehicle when a projectile is fired.

Grab object system

- Option to grab objects without change its position nor rotation for a more organic feeling (similar to soma or amnesia).

Mansion

- New demo added, with a mansion similar to resident evil 1 (nothing fancy xd) to add a new demo scene as an example of the capabilities of the asset, showing how different features work together.
- That demo will be improved in every new update until all the mansion is completed (only the mansion part from the game) making a mini game with it.
- For now, it works to show the locked camera system possibilities.

Health

- Lot of new options to configure calling functions when a character dies.

Fixes and changes

- The prefab of the player doesn't contain the level map created now, so you can create a map easily in every level, and just by pressing a button, the map system searches and assigns every floor created. Every map floor is automatically assigned.
- Correct fov adjustment when the player gets on a vehicle along with correct camera view (third or first).
- Lot of fixes in the weapons for the player and now it allows to get and assign weapons in a new configured controller.
- Fixes when the player dies, to avoid strange behaviors.
- Fixed weapon in first person which was kept when the player crouched and get up
- Fixed fov when the player draws a weapon in first person
- Fixed fov when player enters in a vehicle
- Fixed gravity change of grabbed objects when the grab mode is the one which doesn't set the object position in front of the camera.
- Player upper body rotation improved with a smoother movement.

Improvements

- The screen objectives system has been improved, allowing to configure any type of icon on screen to show targets where the player has to go (very similar to how works the map system icons, pickups icons, etc...). In this gif, different types of screen icons are shown, for regular objectives, path waypoint and map marks, the images in every icon type can be changed as you need.
- Also, the pickup text info on the screen when the player gets a pickup is placed correctly now, no matter the length of the text, allowing to configure any type of offset and the time to remove every line.
- Little delay in code terminals after setting the correct password to stop use them.
- Most of the considerations to add local multiplayer split screen has been added.
- The event trigger system allows to configure infinite things, like for example, destroy a panel can open a locked door.
- The door system allows to open and close rotation doors according to the side of the player, opening in the opposite direction.
- Pickups usable by NPC AI (friends and enemies).
- Any type of projectile with weapons or powers has an option to kill in one shoot.
- A lot of code has been changed and highly improved, with systems almost totally new, with better functionality and options and much better organized.

Decals

- The decal system allows to define a list of impact decals for any type of projectile (from weapons of player, vehicles, enemies, turrets, anything...) with options for sound, scorch, particles and fade.

- Then you can configure the type of surface by adding a surfaceType component to any object and select one of the elements from the impact list defined (if a surface hasn't this component, a default impact decal configured in the projectile is placed). So there is a lot of options.

## LOG 2.3.8.a WHAT IS NEW IN THIS VERSION

Some improvements, fixes, the new aim assist system and an auto crouch option.

Also, the character creator allows to create npc (friend and enemy) now.

# LOG 2.4 WHAT IS NEW IN THIS VERSION

Changelog:

- Gamepad buttons configured are now saved/loaded in editor and loaded in game (in the next update, the gamepad buttons will have a menu to configure in game too)
- Now the touch button to being disabled is selected with a list of the current axes list configured
- Input action list for vehicles now has the same axes list configured in the input manager
- Locked camera check if the player is carrying weapons or not when enters trigger and check if it was first person or not, so the camera is properly adjusted
- Head look rotation and position improved in vehicles
- Grab objects in locked camera improved with tag layer options and cursor placement correctly done
- Gravity triggers simplified and with more options
- Tag list added for doors and hologram doors to detect objects to be opened and other elements using tag for trigger detection
- Custom Inspector added to door system
- In the map creator, now every map part or floor can be enabled or disabled from the inspector
- Fixed issues in the ragdoll of player and characters
- Improved external camera shake with list manager
- Removed issue with the player changing from first to third person when he is crouching
- Improved vehicle weapons with options to configure lasers and launch projectiles instead of shooting them.
- Improved turret system
- Improved grab system with more options and new custom inspector
- Fixed rotation with pickup chests when they are instantiated, also with correct gizmo positions
- Vehicles pick only ammo from weapons that actually own
- Smoother rotation of the camera when the player gets off from vehicles, with option to reset or not
- Better combat system damage detection
- Improved homing and seeker projectiles (ZORG ZF-1 SYSTEM)
- Fixed issue when the input was loaded from file, where the previous axes list wasn't cleared.
- Fixed issue with weapons dropped when player died and was aiming
- Improved draw weapons in first person with smoother transition
- Crossing surface in first person for power projectiles is now checked
- Layer to damage and for scorch are now two separated layermask
- Fixed player control mode menu which wasn't closed correctly, option to close automatically when mode is selected
- Improved player movement on stairs and slopes, walking, aiming, …. in any view, first or third.

- Improved audio source management, allowing to define a list of them to get an easiest search
- Improved grab objects system, allowing a much better interaction between rigidbodies and teleport platforms, jump platforms and custom gravity arrows triggers
- Improved launched objects system, so AI can detect better who damage them, even with kicked explosive barrel
- Add new tag "vehicle", for the use device system when the player uses a vehicle
- Improved locked camera player movement when the camera is changed to use the camera orientation as input direction, with a smoother transition, removing the typical problem in fixed camera games where the movement direction is awkward
- Improved input management and added functions to get raw axis movement values, from keyboard, touch devices and gamepad


Features list:

PLAYER CONTROLLER

- Auto crouch option
- Option on character creator to remove previous character prefab when another is created
- The player now can walk through stairs up and down, in first or third person, forward or backwards, walking or aiming, with option to configure stairs minimum and maximum height
- Run and power to run on walls are now two separated options
- Option to overwrite the previous controller prefab with a new model, but keep the controller settings
- Debug button to push characters, with option to damage them, to test the ragdoll
- Fixed footsteps in first person, including footprints, due they were placed in the same position, now a distance can be configured for distance between foots on idle if the animator is not being used in first person, to use the footsteps system without trigger detection


PLAYER CAMERA

- Improved lock target on camera and aim assist
- Move mouse through screen and player aims in the position found in locked camera by raycasting, for a better aim system
- Added option to show or not icon in aim assist


WEAPONS

- Able to reload weapon also when player is only carrying it
- Unified projectiles in one single script, being much easier to add new behaviors and an universal projectiles system for anything that shoots
- Unified projectiles abilities from player to gather enemy projectiles with the shield and shoot them back
- Unified lasers scripts and class to inherit laser elements created
- Decal manager for projectiles, with surface detection for primitive, meshes and terrain with sounds, particles and scorch, with fade options
- Option to allow or not the player to drop his weapons
- Option to change or not to next weapon available when player drops a weapon
- Option to use the same shake camera values in first and third person in vehicles and in player weapons
- Debug option to change for next and previous weapon, draw, aim, keep or drop it

VEHICLES

- Option to throw the player from the vehicle with a high collision
- Option to disable player weapons meshes in vehicles
- Start scene in a vehicle
- Fuel for vehicles, with another type of fuel pick up which can be used to refill them and stored in the player's inventory
- Option to turn on and off the vehicle engine
- Gas tank for every vehicle
- Option to damage vehicles from collisions in any surface
- Option to use claxon
- Improved enemy detection of player in vehicles, now AI actually detects vehicles and who is driving them, taking the vehicles as targets
- Zones to recharge fuel and energy, for vehicles and characters
- Parable trajectory usable in any launch projectile type weapon

AI

- Added the new AI vehicle detection to turrets
- Integration with Emerald AI

DEVICES

- Combination padlocks with actual wheels with numbers to open lockets and similar (it rotates forward or backward the wheel that you are looking currently)
- Added swipe to wheels padlock
- Padlock using the move device to camera

- Added the use inventory object to code panel too
- Scanner only needs to see at character with health for weak spots (it needs to see the scan object just once)
- The scanner also shows the spots of vehicles
- Code panel with a second unlockable screen to lock or unlock an object
- Option to show messages when you press interaction button in an object
- Option for doors to be opened if they are unlocked


INVENTORY

- Remade inventory system, with improved working and much more options
- Inventory manager list used to create the full list of inventory objects in the game, with information like type, amount, can be used, can be equipped, can be dropped, etc…
- When an objects is picked, it checks if the inventory slots are full, but if there is space of the same type of object in one slot, it can be picked
- Option to gather same type of object in the same slot without limit
- Option to configure max amount of inventory slots and max amount of elements per slot. These values can be infinite, using limited slots and infinite elements per slot and viceversa


OTHERS

- Added option to expand and collapse all the list in the custom editors in process
- Added a tag list for doors (and any type of trigger system) to detect when these systems are triggered in process
- Option to change floor in map system with triggers or by vertical distance with the closest floor position
- Added custom editor to grab objects system with more grab options
- Free handles for any element that have a group of transform positions in process
- Performance improvements for gizmos in process
- New system for the custom input manager for gamepad, adding also more considerations for the multiplayer and the detection of multiple gamepads
- Part of the hack system for devices and turrets has been remade to be used with the electronic system, which is used to detect the current player which is using (more considerations for the multiplayer)
- Vehicles also store the current driver, so if a vehicle is being used, it can't be used by another player (used for the multiplayer)
- Devices also store the current player which is using them, so like other elements, they can only be used by one player (again, used for the multiplayer xd, all this kind of system which only can be used by one player already use this system)
- More rooms of resident evil 1 added to the mansion demo (it is almost complete). Also, added some mechanics, like two locked doors, which can be unlocked by using a key from the inventory, and a code panel, which can be hacked. The door with a key has a new

system, the interaction message, so, in a similar way to resident evil, when the player is close to an object, the interaction button can be pressed and a message is showed in the screen (for example, "this door needs the butterfly key"). Also, it allows to configure a camera position, so the camera will look to that place for x seconds or until the player press the interaction button again, taking back the movement of the controller.


MAP SYSTEM

- The unlock map system allow to set every map floor and map part which will be enabled when a map is picked by the player, so for example, you can divide the same map of a floor in two or more parts
- A map object information allow to configure to which map part from the map system belongs, so its icon is disabled until that map part is visible or unlocked
- Text icon color option
- New material for text mesh map
- Option to duplicate locked camera for an easier workflow
- Massive improvements in the map creator, map tile builder and map system workflow, with much better custom inspector and more intuitive to create level maps very easily and in no time


ELEMENTS IMPROVED OR FIXED

- Ragdoll of the player and humanoid AI reacts better when they are activated by death, collision or push
- Using devices system for objects removed
- Remove all warnings in process (most of the remaining are caused by the old particles system, which will be changed soon)
- Checked gravity control problem in aircraft
- Checked sphere controller with enemies, which couldn't detect it correctly, this is fixed with the new vehicle detection system for the AI
- Better sphere controller movement, now the gravity direction is applied using the camera transform as reference, instead the rotating sphere which hasn't a fixed reference point to use
- Lot of code performance improvements
- Systems like player weapons, vehicle weapons and powers have much more customization options, with the new projectile system
- Improved player detection by AI, walking or driving and better humanoid AI movement toward its target when it is aiming a weapon or using combat mode
- Ziplines movement improved, with a moving support for the player

# LOG 2.4a WHAT IS NEW IN THIS VERSION

The biggest elements are the head track system and the pre alpha of the AI for vehicles and the race tracks. The rest are improvements over a lot of systems and a few fixes.

- Configured tag names in inspector for sphere and moving elements in the gravity system for vehicles and player
- Fixed controls to change to next or previous weapon. They didn't work correctly with the option to don't draw next weapon after drop the current
- More elements added to the mansion demo, like head track, triggers to change between floors in all the necessary places, more save stations,…
- Head track advanced gizmo to show range view
- More options added in the map manager and locked camera system, like gizmos options for a easier use
- Device string actions disabled when the message interaction is disabled
- Message interaction can be used with interaction button enabled or disabled
- Improved character creator auto weapon configuration and bones selection
- Improved weapons management and fixed problems when player picked weapons from ground too quick
- Rails mechanism improved and added function to call other objects once they are activated
- More custom editor inspector added
- Internal working of character creator improved and simplified
- Projectiles scorch are attached on doors when they impact on them
- If health or energy or fuel is infinite, the hud bars are disabled
- Option to draw a weapon picked or just store it
- AI for vehicles and race tracks system on version pre alpha (currently on process, but it can be tried already)

# LOG 2.4b WHAT IS NEW IN THIS VERSION

This is a really big update with a ton of improvements, some systems have been heavily modified, code has been simplified and optimized to get a better performance and less use of resources

- Improved inventory creator manager and window editor
- Automatic inventory object creation
- Added option to configure the amount of objects to use or drop in the inventory
- Option to combine amount of objects dropped or drop all separated
- Added option to hide the mini map window, so it is only shown in the map menu
- Fixed laser in first person which was detecting the player's collider and not be activated by laser devices in the scene if player is using weapons instead of powers
- Optimizations in damage detection for characters and vehicles
- Added option to create weapon prefab automatically
- Fixed issue when the weapon doesn't auto reload if magazine is empty when the weapon hasn't animation
- Improved gravity system triggers, allowing to configure a center point for circumnavigation on objects (jump from sphere to sphere for example)
- Improved sphere controller
- Improved collision detection for weapons in third person mode, if the player is too close to a surface, the weapons is placed in a stand position and the player can't shoot the weapon, with cursor changing according to the situation
- No necessary tags and layers removed
- Removed all the GameObject.Find, FindGameObjectWithTag and similar functions for a better performance and improved code
- Added option to push characters ragdolls on explosion from projectiles (before, they only received the damage from these explosions, and the ragdolls were only enabled if they died or the damage was higher than a value to activate the ragdoll on damage received)
- Added option to push character ragdolls on anything that can explode: vehicles, projectiles, explosive barrels, etc…
- Added option to configure if the character can be pushed or not by explosions
- Draw gizmos performance improved in all systems
- Added more custom editor inspector to some components
- Camera automatic head bob on idle when opened menus reset correctly
- Added option to grab an object while using weapons in first or third person
- Added option to allow to change gravity object when it is grabbed an dropped
- Added option for realistic recharge to remove the remaining ammo from the clip and reload a full magazine
- Added option to drop a magazine model for weapons with options to destroy them in x seconds
- Added pocket system for weapons, allowing to configure where every weapon is placed in the player's body. Like this, if the player picks a weapon placed in an occupied zone, the previous weapon is dropped and the new one picked

- Added three new weapons: the sticky bomb launcher, the laser miner and a revolver
- Added option in weapons to make projectiles break through any object (vehicles, characters, surfaces, ….) a certain amount or infinite times (until the timer in the projectiles reaches 0, so it is disabled)
- Now, the fuel for vehicles can be used in three ways:
  - While the player drives, the vehicle picks the fuel from the pickups in the ground
  - Refilling the fuel tank using the inventory
  - Dropping a fuel can using the inventory and picking it by driving the vehicle
- Added option to the laser mines to configure a timer to destroy them or a number of objects to have contact with the laser to disable the mine
- Added option to allow or not to grab objects when player is using the weapons mode
- Added option to damage multiple times the same objects if the projectile impacts a few times using the break through option
- Change the old sendmessage functions from inspectors where configure functions to call to unity events in process
- Optimization in functions to manage health state, damage, healing, etc….
- Faction system which allows to configure the relation to all the characters in the game, for example a faction for the player, another for friend soldiers, enemy soldiers, etc…..configure if these groups are friends, enemies or neutral, group by group and relation by relation. This system is used for AI to know if it can attack or not to another character, so the tag system is not used anymore
- The faction system has options to change the relation type if one character of a faction attacks another, so the attacked character can be turned into an enemy for the character who attack him or turn the whole faction into an enemy. These options allows to turn groups into friends too
- New weapon to repair objects, give energy, fuel and heal to vehicles, heal and energy to characters. This weapon can also take this elements to gather them as ammo to use into other object, so you can "damage" it to take its energy/fuel/heal to give it to another object or character
- Added option to recharge weapon automatically if the magazine is empty
- Added an option for the door system to use animations instead of rotate or translate every panel door, so you can use any of these three open/close modes.
- Added option to inventory menu to combine objects and to configure what objects can be combined and the resulting object
- Option to configure an animation when an inventory object is added and another when all the objects are placed on that object
- The places where use inventory objects automatically set the objects needed in the player inventory manager when using the inventory menu, the interaction button or the automatic option to use those objects
- The AI is able to store those characters who attack them and recognize them as enemies even if the faction of that enemy and that AI are not enemies
- Option to show or hide HUD on vehicles
- Added option to damage objects on collision for vehicles when the vehicle velocity is equal or higher to a value, to avoid damage these objects if the vehicle is not moving

- Improved vehicle manager custom inspector
- Kinematic panels that can be grabbed and dropped (similar to dead space)
- Option on vehicles to change or not player's gravity when he gets off from them
- Added max surface angle to being able to walk
- Player's gravity is adjusted when he gets off from vehicles if he was using a different gravity direction
- New seat info settings added to IK Driving Manager to configure better the position where the player gets off from vehicle and for the future option to configure different seats on vehicles so players and characters can get on and off
- Option added to gravity triggers to change directly the gravity direction of the object touched instead of search a new surface
- Improved vehicle detection of player, getting a simpler code and a better resources use
- AI able to get on and off from vehicles
- If the player has already found that AI, they are added to the friend list manager. This AI checks if the player is driving or not and set the vehicle as target to reach
- Once the vehicle is reached, they get on in the closest seat. If the player gets off, they do as well, unless the player has given the order to wait, so they will wait in the vehicle, even if the player gets off. The AI also get off from vehicles if the order to attack is given to them
- Once their target to attack is eliminated, they will back to the vehicle, or the player if he is not driving
- Added option for vehicles to make the player always the driver, to avoid the need to move close to the driver seat
- Improved interaction icon message management
- Added option for doors to open and close using the interaction button
- Added option to turn into enemies to character due to friendly fire
- Fixed issue with inventory object ignoring player's collision when the player picked an inventory object which still has remaining units
- Fixed issue when the player died between transition from ragdoll to animation, sometimes, the ragdoll wasn't enabled if he died between this transition but he was died
- Massive improvements in map creator and tile builder inspector functions and internal working and add/remove elements from scene management
- Scene mansion of resident evil has all the map complete and the basic mesh. In next updates, the mansion mesh will be improved and new elements will be added to use inventory, weapons, mechanics, etc….
- Unity events added to more elements (like simple buttons, objects which needs inventory objects, electronic devices, etc…) for an easy configuration and remove most of the SendMessage functions
- In the map tile builder component (every plane mesh element from every floor), allows to rename easily the gameObject name, so it is easier to assign the map icons which belongs to that map part
- Improved locked camera system to place new cameras in front of editor camera using raycast for an easier configuration

- Added option to locked camera system to configure a new FOV value for the camera smoothly or at once
- Improved map floor and parts unlocked inspector with an easy way to select which part of the map are shown when the player gets a map pickup
- Elevators works with the locked camera system
- Added option in map tile builder to add vertex at a certain index, instead of only at the end of vertex list of a map part
- Fixed zoom in and out in map menu using mouse wheel
- Elevator system custom inspector improved
- Added option in elevator system to change current map floor used in map icon when the elevator moves to another floor
- Fixed issue on map window showing map icons name when map was opened the first time
- Removed smooth camera movement from player to vehicle position when the scene starts with the player inside the vehicle, so the camera is already looking from the driving perspective
- Fixed issue with power cursor disappearing when the camera changes to first person in powers mode
- Fixed issue changing players mode (weapons, combat, powers) not changing correctly cursors on screen
- Added parable trajectory option to player's weapon, vehicle weapons and powers
- Added option for vehicles to have a key action to activate the self-destruction with a configurable delay of seconds, and options to eject all the passengers, make them to get off or stay in the vehicle. The same key action can stop the self-destruction
- Configurable time bullet that can be called with any action, like a head shot
- Fixed issue with player mode management (to transform into an sphere, use jetpack or fly)
- Added camera shake settings when shooting powers
- The 3d HUD for weapons in the aircraft is disabled if that vehicle hasn't weapons. Also, the fuel bar has been added in that HUD
- Added option to eject from vehicles
- Projectiles that break through surfaces plays one impact sound by impact
- Improved elevator management of add and remove floors
- Added unity events to hack mechanics
- Hack password devices has been improved and a couple of issues with moving camera to devices fixed
- Fixed issue with player sneaking a turret which wasn't treating him like a threat properly
- Code devices where use inventory hack objects to activate the hack button
- Added option to locked camera system to rotate the camera with a range of rotation
- Added option in vehicle camera to restart or take the vehicle camera orientation for player camera when he gets off
- Added option to set a shake rotation in the upper body of the player while he shoots a weapon
- Added limit range option for look at player position option in locked camera system

- Added option to move the camera to left, right, up and down within a range for the locked camera system, with options to use a spring camera type, for a better 2.5d camera control
- Fixed homing weapons to disable their states to search for target when the weapon is changed, disabled, etc….
- Improved auto shoot on tag system to recognize properly the targets detected, like vehicles or characters
- Added offset to option to look at player position in locked camera system
- Started to configure sounds and rigidbody forces to work properly with bullet time, changing pitch and properly velocity according to time scale
- Added chassis shake to car when player or passenger gets off/on, it will be added to the rest of vehicles as well
- Added navmesh obstacles for vehicles to be avoided dynamically by AI, though it doesn't work totally fine yet (the obstacle component can be disabled in the vehicle inspector)

# LOG 2.4c WHAT IS NEW IN THIS VERSION

- Improved menu management
- Added save game window for main menu, so the game can be saved in any moment
- Added saving game icon option when the player reaches a checkpoint
- The save system store player's rotation and camera rotation separately
- Heal and damage triggers improved and added option to add or remove value at once (for example, to make death triggers for any object)
- Improved and simplified main menu game
- Added spring rotation option for locked camera system
- Added option for the save system to store or not a camera capture when the game is saved
- Added checkpoint system working with save system, with an easy checkpoint creator and manager to place them easily in the scene. If the player reaches a checkpoint, an extra save slot is added to the save game menu. This slot cannot been used to save in the save menu or being deleted, is just overwritten for checkpoints and it can only loaded
- Fixed issue on computer devices (not real PC, the computer devices inside the asset with keyboard) where number keys didn't nothing when they were pressed due to they weren't added to the allowed key list in the Computer Device inspector
- Added option in foot step manager to configure a lower step volume when the character is crouching
- Added vertical and horizontal map camera movement for 3d and 2.5d views
- Added option to set the player's collider height when crouch
- Grab mode adapted to 2.5d mode (needs to set the option Grab in fixed position to false
- Improved gravity system rotation when a new surface is found, now is much more smoother and the rotation is around the gravity center of the player, instead of the player's feet
- Character drop their current weapon if they are damage in a specific part configured in the health system, for example the arms
- Characters search the closest weapon in the level if they have not weapons
- Characters already pick the rest of pickups in the level when they are close to them
- Fixed issue with combat AI moving towards its target
- Press the horn in vehicles, will make to already found friendly AI to go to the vehicle, with an option to call to not found friends inside a radius in the vehicle position
- Added closet and drawer system with different doors to open and close and an option to the use devices system to select which elements will activate the interaction button by looking at them
- The objects placed inside these closets will be manage by them, showing or hiding the interaction buttons of these objects
- Added option in powers to keep power gravity when the run power to walk on surfaces is enabled or to set the gravity back to the original direction before start to run
- Added the DPad input to the new gamepad system working with the custom input manager and added again the quick change between keyboard and a new connected gamepad or set the control back again to keyboard when the gamepad is removed, both automatically

- Added debug and state to the custom input manager to know more about its current state and configuration
- Added new option to trigger event in the event trigger system for enter and exit, configuring every list of event separately
- Added controls for map menu window to use the input actions to manage that menu (the rest of menus will have the same type of controls, to being able to be managed by a gamepad)
- Fixed issue with inventory where the player can pick an object which is not yet in the inventory when there is not free slots available
- Added inventory bank to manage inventory objects outside the player's inventory (like resident evil games)
- It allows to move objects from the bank to the player's inventory by drag and drop every object icon from one list to another
- There is different modes to manage this. The main part is drag and drop the icon in the top or the botton of both elements list (there is a reason to work like this). There is also an option to move all the units of an object slot at once or configure the amount to move
- Also, the bank take into account all the limits of the player's inventory, like amount of slots and units per slot
- When an icon is dropped on top of other icon (the reason that I was talking), so in this case, the objects in the bank and the player's inventory exchange places (also configuring the amount to move from one to another)
- The inventory bank is similar to player's inventory, allowing to configure an initial list of objects if it is needed from the list of inventory objects configured in the main inventory manager
- Added option to drag and drop icons or not to the inventory bank. If the option is disabled, the objects are moved to the other inventory list when they are pressed (at once or by selecting the amount)
- Fixed issue with rotating doors when they were unlocked using inventory objects and the door didn't have the variable currentPlayerTransform correctly assigned
- Fixed issue with inventory when the player uses of them, sometimes, when the player pickup a new inventory object, some inventory message was shown
- Projectiles with the option to kill from one shoot now sends the projectile owner, so when a character dies like that, its faction system detects who attacked him and check if the factions are now enemies or not (before, this faction check was only done when the character receivers damage, not killed at once)
- Laser particles smoke and sparks fixed (the texture was missing)
- Added option for jump platforms to impulse object making a trayectory, setting the target position using an empty transform
- Added flashlight using the weapon behavior system and the option in IK used for weapons to just use one hand to carry a weapon/tool
- Fixed bug when the player draw his weapon in first person the first time and then, change the camera to third person, the info about the current weapon wasn't stored properly
- Added options to use unity events at the start and stop of aim in any view
- Added option to set a higher intensity to flashlight then the player aims with it

- Added noise camera movement when player shoots his weapon in any view. This noise uses a range of amount when a weapon is fired, so along with the configurable shake camera (which only moves/rotates camera), the noise allows to lost the current sight from your target (like weapons from most games), configuring a random range vertical and horizontal
- Removed a little restriction to change between weapons where the player couldn't change them if he was aiming in third or first person, now he can
- Added option to change to next weapon with ammo if the current one is empty (no bullets in the clip, neither remaining ammo)
- Added option to every weapon if the HUD with the info of the weapon is activated or not
- Added option to configure a smooth camera rotation, configuring the vertical and horizontal speed
- Added examine object system to inventory pickups, so now, they can be examined before be grabbed or the player can stop to examine them and drop them
- Added an initial version for a multi axes list to configure different group of actions which are used for every mode in the player according to the current action he is doing, like an axes list only for the weapons, another for movement, powers, menus, examine object, use devices, drive, etc…. Every axes list has the option to configure an action screen showing the current actions that the player can do in that moment and the keys input assigned to every action
- Added lockers and closets which only open with the interaction button, without need to look at the handers
- Improved aim assist to detect the current target to look
- Added camera control type to vehicles when the player is in a locked camera state
- Added option to allow the player to move or not while aiming in locked camera
- Added new tool/weapon: a smartphone with an activate camera. This tool has an option to allow the player to take captures of the current camera in the smartphone and manage these captures in the capture gallery, in the menu. Also, the camera can use a zoom with the secondary action system, using the center button of the mouse. The camera has also an option to use a flash
- This camera can also show elements hidden at sight in the level by just adding another layer to the Culling mask of the smartphone camera. Of course, the screen and the camera of the smartphone are disable if the player is not using them
- Capture gallery manager to see, expand and delete captures made by the smartphone tool and with another system to make captures in game with options to move the camera freely, disable objects of the scene (like player, npcs, etc…), make zoom, rotate camera, etc…. This gallery manager allows to configure the path where the photo files are stored
- New options added for weapons to call to unity events when the player draw and keep the weapon
- Added option for weapons to disable their mesh when they are kept (for example, if player is using a smartphone, he will keep it in his pocket, instead of carrying in some part of his body like a weapon)
- Added capslock to the computer device to write passwords distinguishing with lower and upper case

- Added the system to check if a photo has been made looking at a specific object, position and direction (like in shattered memories), to reveal hidden elements. It has been really easy and quick to add
- This system allows to configure the objects that will be enabled and disabled when the capture is made and the unity events that are triggered. Also, it can be configured the max angle to check if the player is looking correctly at the position configured and if there are objects that need to be visible in screen too. Finally, there is a bip sound to show to the player how close to the position for the capture he is currently
- Added unity event for scanable objects to configure what happen when an object is scanned, for example, to make an enemy to wake up if you scan it, or to open a door
- Added option to allow to drop or not a weapon. This option is also checked by the pocket system if the player is going to pick a weapon from a pocket already occupied, so in this case, the new weapon is not picked and it can shows a message to tell the player he can't get that weapon
- Added option to save/load current player's weapons between games. In the file is saved the state of every weapon: name, index, if it is enabled (in this case, the player can use it), remaining ammo and if it is the current weapon that player was using before. Similar to the input manager, you can select if the weapons at the beginning are the one configured in the inspector or in the list and also, if the weapons file info is save and/or loaded. Also, it allows to save the current weapons list configured in the inspector in editor mode
- Added option for simple switch to use a turn on and a turn off event to call different functions on both actions. Like this, they can be used for example as a wall switch to turn on/off a light from a room
- Added rack to be opened and closed (similar to deus ex human revolution), using the waypoint platform system
- Added elements that will trigger an event when they are fired with projectiles, for example, to open a door by shooting to an object, activate a gate by shooting to a device, etc…
- Added trigger system to hide any character (player, npcs or AI) in the grass (or any place necessary) from enemies. The AI is able to know where you are but they can't attack due to player is hidden. It allows to configure if the character needs to crouch or not, if the character can't move to avoid being detected and if the hidden state is temporal and he will be visible again to AI in x seconds
- This hide system can be combined with probuilder for example to create mesh collider with any shape, so the hide trigger can has any size and shape to fit the place where a character can hide freely
- In hidden state, if the character attacks to an enemy, the character will be visible until none member from that AI faction has that character stored as a detected target, which is removed when all faction member that have seen him die
- Also, it has a character state icons in screen and in real world according to camera view, showing the current state of the character (for now, hidden, visible, surprised and wondering, these last two used in the AI), to show the state of the character in every moment, with option to use sounds, like hummm or alert clips
- Improved faction system, now it manages the current detected enemies of every faction to allow to check a faction target better, so they can attack that target in group, or give the

alert in that target to the close faction members. Also, the faction system now removes the dead members of a faction

- Improved AI with a horizontal range vision angle to detect targets in front of it and make sure that an enemy inside its trigger range is also seen by that AI, with advanced gizmo. This range vision is also used when the AI is checking a threat outside of its trigger radius

- Added min distance to attack for AI to targets inside the trigger but not seen yet, so if the player moves behind them not discovered yet but he gets to close, the AI will notice him and will attack

- Added alert option for AI to call other members of the faction when a target to attack is detected or this target attack to one member of that faction. The members called are inside a radius respect the AI who found the target, so this can be used in a similar way to Wolfenstein with the enemies that call reinforcements or just to make the AI able to attack in group. Kill a member of a faction without being detected avoids that member to alert to the rest

- Improved nav mesh for AI, having a rate value to check if the target position has changed or not, to decrease the resources used in the navigation

- Added hide in fixed places system for tables, lockers, below vehicles, boxes, trash can, under beds….any place you need, where the player hides in a place where he can't move, making it invisible to AI. In this state, there are options to configure if the player can move and rotate the camera inside a range, with option to use a spring movement to reset rotation and position. This option can be enabled and disable ingame with the right button of the mouse and more actions in this state can be added. Also, it has two events configurable when the player hides and makes visible again

- The hide in fixed places checks if the player has been detected by an enemy, so if this is try, the player can't hide until not enemy is searching him

- Added option to play sound effect when player draws or keeps a weapon

- Added options in electronic devices (component that manages most of interactuable devices in the asset) to call an unity event on trigger enter, exit and stay, this last one using a time rate option. Also, added option to configure another event if device can't be used in that moment

- Improved selection of amount in inventory menu for objects to drop and use, allowing to hold the button and the number will change using a time rate, and a new button to select the total amount of units in the slot selected

- Added a system which allows to drag and drop objects in a fixed camera place, to make different kind of puzzles

- Added first type of puzzle system: assemble objects by dragging and dropping pieces, to trigger an event. It has a lot of different options but basically, just need to configure where every piece goes, the trigger to detect if the piece is close to its position and if there are pieces that need to be placed before. Then just configure if the piece is placed directly or if needs to have a rotation limit respect the position where it goes of x degrees and same for the position, configuring how close needs to be. Every piece calls an event to increase the number of pieces placed and once all are in position, the puzzle is solved and calls another event, so like always any action can happens once the puzzle is over. Also, it has options to configure a sound to the solved puzzles and a 3d mesh text as a clue for the puzzle. Also, it

allows to reset the puzzle again, so the pieces state are reset too and the puzzle needs to be done again. It will be improved in new updates, for example, allowing to grab a placed piece again (the only way now is to reset the puzzle), options to use inventory objects on it, etc....

- Added option in examine object system to allow to rotate one object vertically and/or horizontally, both or none of them
- Added more custom inspector to different components, like move device to camera, closet system and more
- Improved submenu system for the pause menu system to include events options when the a submenu is closed
- Added option to draw weapon automatically when the player mode is changed to weapon mode. If this player mode is changed to another mode and the player is using a weapon, this will be kept too
- Removed restriction to drop a weapon when the player is aiming, in first or third person
- Starting to add options to allow to manage player's actions velocity with regular speed for camera rotation and player's movement. For now, the camera has an option to rotate with the same speed on regular/bullet time
- Fixed bug on explosive projectiles when these were fired and they didn't hit any surface, where the explosion was called infinitely