CATEGORIES:

PLAYER CONTROLLER

Added option for the player controller to make a dash in the air which allows to impulse the player in the direction he is facing in third person and in the camera direction in first person. It has options to configure the force of the dash, the cold down amount, if the gravity force of the player is paused when the dash is made and the amount of time until the gravity force is resumed again.

There is also an option to set the amount of dash that the player can make until he touches the ground again and another to configure if the player can teleport to a certain distance in the air if not surface is found or cancel the teleport on this case
Added check in pickups to disable the interaction button icon and action if the pickup option to take the object is trigger instead of use the interaction button

Added bool field to the jetpack to disable the mesh if the system is not used, preventing that the mesh is enabled in other situation which used to enable the player's body, like getting off from a vehicle or changing the camera view from first to third person
Improved movement on first person if the option to use animator on that view is disabled, being a more precise and tight movement

Added component to pause or resume the player actions, in this case, the movement and camera rotation, to avoid him from make any action, though the component also calls to a function which stops all the states in the player that should be stopped, like aiming, grab objects, etc... This component uses triggers to be activated, but it can be called by any other function. This is mostly used for cinematic or cut scenes purposes (thought it could be used for any other needs)

Added free floating mode to the player, similar to an infinite jetpack totally controllable. This is similar to the zero gravity mode, but with this the player will only move in his current six axis local direction (with regular gravity, just in up, down, left, right, forward and backward), without rotating freely in the 6 axis, but only in the regular vertical and horizontal direction. On this mode, the player can also move vertically up and down with the above option for zero gravity. In this mode, the player will rotate towards the camera direction in his local Y axis and he is able to draw and use his weapons and powers too. To activate and deactivate this mode, the player needs to hold the gravity power button for a certain amount of time and release it

Added events on player states manager for the list used to configure different player modes, like weapons, powers or combat, allowing to configure events which will be triggered when that player's mode is selected

Added more options in the player states trigger, like make the camera to look at an point x amount of time, enabling and disabling the option to stop the look at target action, so the camera looks at that point until the times ends or the player finds another states trigger which modify this camera state. This component also allows to set the camera zoom value x amount of time, enabling or disabling the input action after the times ends

Added IK system to move the character's body dynamically, adding also movement and rotation according to input, inspired by games like infamous and control

Added interval time for footsteps on first person for every type configured in the list, along with adding more footsteps states

Added run crouch and run crouch backward speed values for the first person movement options

Improved foot step manager, removing the old layer system with one where just need to attach a simple surface component to a collider object and set the surface name on it. The foot step manage will detect the name of the surface and use the step sounds according to it. This allows to use a unlimited number of surfaces type, while the previous system needed use layers, so now there are more slots to create layers for any needed task

Improved ground adherence on slopes and stairs, making the system smoother and more configurable, including a simplification of the code too and working better in any view, free camera, aiming, first person, etc…

Added option to look in the camera direction while moving, with the classical strafe movement

Improved ragdoll creator, similar to the character creator, it allows to assign automatically the bones to use for ragdoll but also allows to set manually any bone before create the full ragdoll, so it can be reconfigured to assign the correct bone in case the automatic system doesn't found the proper bone on non regular skeleton hierarchy

Added option on player controller to configure extra body parts, so these can be enabled and disabled if the player changes the view to first person

Checked compatibility of MCS models (UMA support will arrive on 3.0), so the character creator of GKC allows to configure and use these models to create new players

Added option to set the regular movement speed to run by input, allowing to configure a walk speed value by default and set the run speed with shift (or the input configured for that action), for games where the player has a lower movement speed. Other option allows to configure if the run button must be held to run or just pressed to enable or disable the run movement

Added option on player controller to only allow to adhere on surface while he is on zero gravity or free floating mode if the max angle between the player up direction and the normal direction of the detected surface is lower than x value. This avoids that the player adhere to a surface below his feet with a too high inclination, getting maybe a player too much inclined walking on the ground

Improved close combat system for triggers on player's body to configure the force applied to vehicles on impact

PLAYER CAMERA

Added option in player's camera to use different rotation speed for smooth rotation of the camera for first and third person view. Also, it allows to configure if the smooth rotation is used in first and third person separately

Added maximum, minimum and initial fov value along with transition speed to another camera state fov in every camera state configured in the player camera, to allow more customization

Improved camera shake system for external actions, like events called from explosion, earthquakes, etc… allowing also to configure a delay before start decreasing the shake of the camera until it reaches 0 or the shake duration is over

Added crouch and run crouch states to the head bob system

HEALTH SYSTEM

Added buttons to health inspector to add and remove damage receivers in all the colliders of the ragdoll, so these characters can still receiving damage even in the state of ragdoll active, with the same accurate system of damage detection, like shoot in the head, the torso, a leg, etc… Also, in case that the ragdoll has damage receivers, by configuring the type of impact in the health component of that character, the impacts and damage on the body of the ragdolled character will have the same particles and sound impacts that the regular character, for example blood and flesh

Added option in character's ragdolls and health managers to receive damage on collisions when the ragdoll is active but the character is not dead yet. It allows to configure min velocity of the impact to receive damage, damage multiplier from the damage that will be applied to the character multiply by the impact velocity, min time to receive damage again from another impact (to avoid that the same collision apply damage to every collider in the ragdoll, so it is just applied once at a time)

Added option in health system, allowing to configure in the weak spot list an amount of health in that spot, so if the character receives enough damage in that body part, an event can be called, including an option to kill the character if the health amount in that body part is 0. This allows for example to configure that the lower leg of an enemy has 20 units of health (and that character has 100 units of health). If the damage received in that leg (the health system allows to know the exact place where a damage is received) reaches a value equal or higher than 20 (for example, 20 exactly), the current health is 80 but that leg has no health amount remaining, so the event calling "explodes" his leg, a particles system is enabled for the blood and flesh and the option to kill the character is enabled, so he also dies (since there are no animations for a character without a leg, the easiest thing is to kill that enemy, in real life he couldn't keep fighting anyway). The same settings are available on vehicles, allowing to configure places where to call events on damage, set a certain amount of health in that spot, etc...

Added option on health system to keep applying damage even after the object is dead. This can be used for example on ragdolls, to allow to keep damaging it, so for example, if the character is configured to lose limbs on certain amount of damage, the ragdoll will receive that damage and the corpse will lose those limbs as the player (or any other character) keep applying damage to that ragdoll, for example, by shooting at it (similar to dead space where you can "break" corpses by damaging them)

GRAB OBJECTS

Added a new system to configure events on grab and on drop for any object, so when the player grabs or drops an object. This for example allows to take a gear from a mechanism and stop the gears which rotation was transmitted by the gear taken

Added option in the grab objects system to allow the player to grab physically objects, carrying it in his hands (the previous system only allowed to carry the object floating close to the player, but with working physics too), combined with IK. Also, for first person, the object is carried close to the camera. On this grab mode, objects still having collisions, but they are ignored between player and the object itself, to avoid issues. Also, the place where player's hands are placed can be configured separately in every object that is able to be grabbed. This system also doesn't need to be in aim mode in third person to grab an object, due a new component an a trigger detection to manage a list of possible objects to grab, and similar to use devices system, it can show a panel placed in the screen position of the object and an option to select the closest object to the camera center with a max distance value. Also, an object can configure the movement speed value in the player, so it can configure a slower walk movement for bigger or heavier objects

Added option on grab objects to attract the current grabbed object by pressing the mouse wheel (default control) to the regular carry object distance, for example to grab objects that are far away and bring them quickly where the player actually is

Added option on grab objects to enable or disable the grab object general cursor along with another option to only be shown when the player finds an object that can be grabbed
Weapons has an option to configure different reticles for every weapon, with option to set one for regular mode or another for aim mode. Those weapons without custom reticles configure will use the default reticle

Added option in grab objects to not use its cursor, along with another to set if this grab object icon is only enabled when the player has found an object to grab

The grab objects system has been improved, collisions works properly now between the grabbed object and other elements in the level without affecting the player, for third and first person. Also, objects can now be carried with only one hand and even without enabling the IK. Every object can be configured separately for hand positions, position where carry the object for third and first person, the size of the object, to calculate correctly the collider of the object to carry, etc... Also, there are separated positions to configure as places to put the object in first and third person

Added support on the grab physical objects system to carry ragdolls

LOCKED CAMERA

Added top down view setting in the locked camera system, allowing to configure not only top down orientation, but any kind of camera with a fixed rotation angle which follows the player's position, like isometric and any view between these two types. The camera has settings to configure following speed, offset for the camera while the player moves, camera position bound, weapon/power cursor movement on screen with cursor limits (vertical and horizontal) and a lot more of customization

Added system for top down view (and other similar perspectives like isometric), to check the objects between the player and the camera to turn their materials in semitransparent while the object is between the player and the camera. Once the player is visible again, the materials of these objects are reset for the originals

Added option to change between set the fade and opaque alpha value of the materials in the found surfaces smoothly

Added option to use unity event when the player enters and/or exits from a locked camera trigger

Added camera system to configure a list of waypoints to make a cinematic camera path, allowing to configure different speeds for movement and rotation for every waypoint, if the camera looks towards the next waypoint or looks to a center point and a delay to move to the next waypoint (most of its code is very similar to the waypoint platform system, so it has been very quick to add). Also, it has gizmo options so it allows to see easily every waypoint configuration. After the path is over, the camera is translated and rotated toward its original values in the player camera, resuming his movement. Another options allows to configure a camera rotation, so after the cut scene is over, he can be looking to a certain direction. This component can also disable all the hud elements on the screen and activate again

Added point and click system to control the player by pressing in a surface to order the player to move to that position, in a level using the locked camera system. The player uses a modified navmesh system from the AI, but in this case the control between regular and navmesh is changed in game according to the point and click option configured in the locked camera system.

Also, contains options to configure info to be shown of a pressed element and buttons to enable and disable that element and to distinguish between a surface pressed to move the player and an object to interact. It also checks if a pressed position is the regular ground or a wall, so the player will move only in case is a navigable position. Of course, like the rest of game modes, it allows to be changed smoothly between any control or view, for example from free first person to locked point and click, and vice versa. Finally, if the player press an element to interact, the character will activate it once he is close enough to that element

Improved locked camera checking to set the current movement direction of the player according to the last locked camera local direction respect the current locked camera direction, to allow a smooth transition on the control from one camera position to another, to avoid confusing movement directions, like some happened on some old school games with fixed camera

Improved 2.5d camera system, making it smoother, with some extra options for that type of view and other for the locked camera system (which is the main used for all different camera views different from free mode). Also, the 2.5d view can be configured using the X and Y axis or the Z and Y axis, allowing to combine both views to make games with more complexity or depth, combining different types of view

Added camera clamp system for locked camera (2.5d, locked view, semi locked, top down, isometric, point and click, etc…), to limit the position of the camera to a certain range, used in many 2.5d and 2d games, so if the player moves close to a wall on the limit of the camera, this will only move until a certain horizontal and vertical position towards the player. This will be configurable for different rooms, so you can set different limits on every place you need. The system allows to set different limit values for width, height and depth, every value with two ranges, for left, right, up, down, forward and backward (first four values is for 2.5d camera and the rest can be used for semi locked view). This system works using triggers, to set the current clamps values in the player's camera, with editor options to set a certain values at runtime to test these values and find the best setting

Added bound camera option for the locked view, so if the player is inside this bound, the camera won't move, if he reaches the limit of the box, the camera will move. This is also usable on the rest types of views, like top down, isometric, semi locked, etc… It has values for width, height and depth, with two values for every axis, including a gizmo to see properly the current values configured and its size. Also, there is another option to set an offset to the left and right side, configure the amount of offset according to if the player is moving or not, similar to how metroid: samus returns works

Improved locked view system, now if the player is on locked view and he gets on a vehicle, the camera will still on fixed position, avoiding that the player can change the view on the vehicle and if the vehicle moves to a zone with a free camera, the camera position will be placed again on the vehicle camera controller, having a free control of it. In case the vehicle enters in the zone of another locked camera, the camera will change to that fixed position too. Also, the locked camera will follow the vehicle in case the camera configuration follows the player position on its settings. If player gets off from the vehicle on a locked view, the camera won't move and will remain on its locked position

Added option to configure the forward camera value on 2.5d in the same component used to configure the limit positions of the camera on every room/zone, for width, height and depth. Like that, the camera can have a closer or farther position respect the player without need to configure a new locked camera with similar values

Improved camera limit system to adjust properly the vertical and horizontal position of the camera on 2.5d view according to the current gravity direction of the player if this gravity direction has been changed

Improved transition from locked camera to free, keeping the previous camera direction movement when the player enters in free camera mode until he stops to use the direction movement input. Like that, the transition from locked to free view is smoother and more intuitive

On cameras like top down, usually the player aims and shoots in straight line in the direction where the mouse aims. This could cause that targets smaller than that height, or targets above that height are not damaged or reached by projectiles. The systems checks the current object found by the cursor on the screen and set the transform field place to shoot from the health component as the position to look by the player, so the accuracy is 100% perfect, no matter the size of the target. Of course, the cursor can be move freely in any moment, so the player can shoot in any other direction

Improved tank controls options, allowing to configure every locked camera separately, setting if the control type is regular or tank mode on every camera view

Improved locked camera cursor movement, now the clamp of the cursor inside the screen works properly, setting as limits of the cursor the sides of the screen, up, down, left and right, with any resolution

Added option on locked camera to set the position to look when the player aims using his current facing direction, so instead of placing the cursor on the center of the screen, this is placed in the surface found in front on the player, so he can aim in front on him for example, making a more natural action

Added button on custom inspector for the locked camera system to allow to see any configure camera view without need to expand the camera list, making easier and faster to check any of the views configured

Improved top down movement for the player while aiming a weapon, now it has an option to move the player locally according to his own local direction or according to the current locked camera direction (this last is the one used in most top down view controls). This input movement can be used on any other camera type which follows the player from a fixed orientation, like isometric type

WEAPONS

Added weapon wheel selection menu (similar to new doom), to change quickly between the current weapons equipped by moving the mouse toward a weapon slot

Added option to the aim assist to allow to configure different body parts to look in the same target, for example, to the head or chest or any part you would need, using the system already made in health for accurate damage detection and weak spots. If there are different parts to look configured, the selected will be the closest to the screen center

These parts are configured and searched as string using the names configured in the weak spot list, in the health component

Also, not only for humanoids, this system can be used with any other element, like the turrets, vehicles, anything which can be destroyed or receive damage, following the same steps to configure them some weak spots and adding those names to the Body parts to look list

Added weapon wheel selection menu (similar to doom 2016), allowing to enable a circular menu where select the current weapon. When a weapon is picked by the player and it is active, that weapon is added to the weapon wheel selection menu and also removed if the weapon is unequipped

The weapon wheel menu is dynamic, so it is updated with the current weapons equipped (or activated in the player weapons manager). When is opened, you move the mouse towards the slot of the weapon you need to change and the players will draw the selected weapon. These slots are placed according to the number of weapons currently equipped

It has also an option to draw the weapon automatically when a weapon is selected and the player wasn't using any weapon previously (the other option would be to change the weapon, but the player doesn't draw it). There is also a dead zone for the mouse to move in the wheel, to avoid to select the closest weapon slot when the menu is just opened

Another option added is the use of bullet time while the weapon wheel menu is activated, similar to doom 2016, to allow to the player to think what weapon will be the best option for the current enemy/situation. Also, it has an option to make the player draw the weapon when a slot is selected, or wait to close the wheel menu and draw the last weapon slot selected

Finally, if the player has not weapons activated/equipped, this wheel menu can't be activated
Improved weapon wheel selection menu to being more dynamic, changing the size of the current slot selected and playing sounds by every slot. Also, it has a new option to make the player draw the weapon when a slot is selected, or wait to close the wheel menu and draw the last weapon slot selected

Added a clamp range value for horizontal and vertical values for rotation and position for weapon sway. Before, any sway values could be higher than desired, because the sway values were increased without limit (this could be more noticeable with fast mouse movements), so the issue

with player's inside arms showing in the screen won't happen again

Added attachment system for weapons which allows to configure any kind of attachment, using unity events, having a system very easy to configure. The steps to configure every attachment is the next: every weapon has an attachment system. Inside of it, a list of attachment zones is created (like the sights zone) and then you place the list of attachments in that zone, like a telescopic sight, or holographic, or red dot, etc....

Then, you configure the unity events for every attachment, which usually is to configure values in the weapon, like the fire rate, or if activate the using sight state in the weapon to change the position to aim in first person

Finally, configure the positions where the attachment zones UI elements are shown while the player edit a weapon. The UI elements are really easy to configure too, setting where the attachment list of a zone is placed and where the dot which shows that attachment zone

Also, there are positions to configure where the weapon is placed in front of the camera. If the player is in third person and the attachment editor is enabled, the camera is placed in first person while this editor is opened, setting the camera in third person again once is closed (if the player was in first person, the camera doesn't change)

The attachment can also be changed using the key numbers, in every attachment zone a number shows which key is used to configure the next accessory

The UI elements used in the attachment editor mode in game are dynamically created for every weapon, you don't need to create none of these elements for everyone, just a prefab of one of the attachment zones, and the rest is created by code. This allows to customize the UI for the attachment editor very easily

The attachments added as example are: silencer, laser, flashlight, holographic sight, red dot sight, telescopic sight, extended magazine, manual fire, auto fire, burst fire, and more will be added

Added new camera transition for the attachment editor mode in third person. Now doesn't need to change the camera view to first person. The player's model stills being visible, and even the hand which doesn't hold the weapon is moved away, like in first person

Added option for weapons to configure fire mode as burst (for example, pull the trigger once and the weapon will make 3 shoots according to fire rate) with any amount of projectiles fired, from 1 to infinite

Added option in the attachment system to change to editor attachment mode smoothly or at once in third person. This option can be configure for free and locked camera separately

Added option to configure a limit in the maximum amount of ammo carried to every weapon of player, NPCs and vehicles. With this option, when one of them picks ammo, if the weapon is refilled, that ammo which is not necessary is left in the ammo pickup
Improved map system to work with negative floors, like basements, with any number of floors

under 0

Improved weapons movement and feeling. For this, new options have been added to configure a new position when the player is running on first person along with a different fov value. Also, there is another option to detect weapon collision on close surfaces in first person, setting a new position for the weapon, but unlike the option of collision in third person, the player can shoot in first person with a close surface to the weapon. Finally, there is another option to configure a jump start and jump end position to move up and down the weapon when the player jumps and lands on first person, with different speed for every transition (there are three, on the jump start, on the jump end and another to place the weapon to the regular walk position). For third person, you can configure a new position for the weapon when the player is walking. All these options, like the previous one, are dynamic and only needs to place the transform used as points to rotate and translate the weapon to its next position, so it doesn't needs any animation to work, all is made in real time. And of course works with any weapon and all these option can be used or not, depending on how you prefer the weapon movement. There are also options to hide the cursor while the player runs or when a surface is too close to the weapon on first person

Added option to make a melee attack with the current weapon on first and third person. This options allows to configure the position where the weapons is moved during the attack, the speed of movement forward and backward, a delay between these movements, the raycast distance to find objects to damage and the position of the raycast, the radius of the sphere cast to find multiple objects to damage and the damage amount. Also, it allows to configure a camera shake, apply force to any rigidbody found, if the force is also applied to vehicles and the amount and play sounds for a surface found on impact or a sound on the air

Added option to weapons to configure if a light object in the weapon is activate x seconds on every shot to simulate the muzzle flash

Added option on weapons to unlock and lock the cursor to activate functions on the world canvas of the weapon, like use different menus on the smartphone tool (to open and close the camera, see the gallery, activate functions, play music, add different kind of “apps”, etc….)

Added apps to the smartphone tool, configured with the UI system. The apps added are the camera, gallery and the music player

Added functions on the weapons to set more stats values, which can be configured through the attachment system, this time, for the type of ammo to use: from regular (the current configured to that weapon), to poison (which triggers a function that apply damage to the target, character or vehicle, for a certain amount of time, with a rate and an amount of damage every time, with option to configure if the damage is applied until the target dies), antidote (to remove the poison state), explosive, extra force of push rigidbodies and trigger and the ragdoll of the characters, sedative for characters (it makes that target to sleep, with option to configure a delay until it starts to sleep, duration and if the target sleeps until receive damage or not). Like this, you can select the effect of the ammo used along with the default stats

Added option on weapons for characters and vehicles for projectiles fired using rigidbody velocity, to use an additional function to detect collisions if the speed of the projectile is too high (instead of use the raycast shoot option which place the projectile directly in the detected surface

without need to apply velocity to the projectile). This options is also included in powers

Added options in every weapon to configure the player movement speed multiplier on first person, with different values for aiming and carrying weapon states. Like this, the player can move faster or slower according to the size and weight of a weapon. Also, it can be configured if the player can run while aiming or carrying that weapon, so for example, he can move half the regular walk movement while he aims a weapon. This is mostly used for the option to no use animator on first person, using only physics to move him, so the new speed multiplier of the weapon affects to all the movement values, walk, run, strafe and crouch along with these equivalent backwards values. But in another update, these values will be applied to the third person animator, making him to move slower or faster with a weapon and allowing or not to him to run with it

Improved projectile surface detection on vehicle weapons. Now, a weapon which uses raycast option to be fired (these projectiles are placed directly in the position where they would impact if they would be fired like a rigidbody, applying damage to the surface found, if it can be damaged) has an option to use a raycastall to check if the direction where the weapon is being fired, usually the camera direction, founds a part of the vehicle driven by the player. In that case, the raycastall obtains all the colliders in a certain forward distance and gets the first surface different from the vehicle itself (there is a list with all the colliders in a vehicle, so the weapon system can checks if a collider belongs to the vehicle or not) and closest to the fire position, setting the projectile on that position and applying damage. Like this, the old issue of weapons being fired at its own vehicle has been fixed, projectiles will avoid to damage its vehicle (except for projectiles with a radius of damage, like an explosive type, which will cause damage by explosion wave). This works for any vehicle camera view, regular, first person, top down, etc…. including the option to aim freely on vehicle if the camera rotation is locked

Added option on weapons to mark objects on the screen, like enemies, to assign icons which will follow them and show their positions on the level, using the screen objective system. To this, you can configure the layer to use, the tag list to check, distance of the raycast and if the player has to aim or not to mark a target. Every weapon can have a different configuration

Added new weapon which fires a laser beam that can be just a shoot or a continuous laser beam until the weapons needs to be reloaded or the ammo is empty

Added coroutine function on aim weapon in first person to reset the current sway and bob values in the weapon mesh, setting its local position and rotation as zero, to avoid a slow resetting of its position when a high sway value was applied and them the player aimed that weapon. Now, the resetting is much better and immediate, but smoothly done

Added option on weapons and powers to use auto aim on locked camera mode, similar to how old resident evil games lock on the closest enemy when the players aims

Added option on smartphone to call events on detected objects when a capture is taken, just by adding a secondary component in the objects with the colliders that need to be detected

Added option to show and set automatically the icon of the weapon when the player draws it, along with options to show and hide if the bar slider, weapon name, ammo numbers and the icon

of the weapon itself are hidden or not. Also, this can be configured in every weapon separately

Added secondary weapons to be used as attachments, so you can activate a grenade launcher for example. It is a new component, with a simpler version of the player weapon system but with all the options available for it, so it is not only a grenade launcher but any type of weapon. It also includes the option to configure new behavior for the secondary weapon and for its projectiles, so for example, you can have a sedative projectile on a regular pistol as an attachment. The ammo of the secondary weapon can be show in the weapon HUD (you can see the number along with an icon below the weapon icon). If the attachment is disabled or the weapon is changed, the HUD will set the proper panel, including to disable the attachment info if the weapon hasn't any attachment active which uses the HUD. Also, hands on the weapon change from position according to if the new attachment is in a place where the can can't be placed anymore, like in this case, the grenade launcher, so the player will put his hand below it for both first and third person view

Improved aim assist system on locked camera, checking if there are obstacles between the player and the possible target to look (like an enemy). Like this, the system avoids to set a target in a different room that the current one where the player is. Also, there is an option to only look at targets visible on the screen and other option to only look at targets visible for the locked camera (no obstacles between the target and the camera position)

Added option to player's weapons to draw it automatically when the player dies and gets up or when he enters in ragdoll mode and gets up, checking if there are weapons available to use. It also checks if the player were carrying a weapon before enter in death or ragdoll mode. It works on third and first person

Improved weapons cursor movement on vehicles when the mouse input is only used to set the position where the vehicle weapon is aiming, allowing to move freely over all the screen and with the screen limits working properly now. There is also an option to set custom cursor limit with height and width

Added option on player weapons to set if an explosive projectile type can damage the projectile owner or not, so if can be configured if the player receives damage from a grenade fired from him for example

Improved animation management on weapons (not in animator, only the animation component), to have separated animation to shoot and reload

Pool system option added to weapons. It allows to configure the max amount of audio source to create and it checks if there is any source in the list that is not playing the sound, so if the max amount is too small, it will add extra sources, in case al the previous sources still playing the shoot sound. In next update, this pooling system will be extended for the rest of systems, to manage instantiated objects better and recycle them instead of keep creating more and more objects

Added separated values on weapons for recoil, so a faster movement can be used when a weapon is fired and then a slower movement will place the hands in the regular aim position of the weapon, ending the recoil

Improved explosion system to apply damage properly to any kind of objects, including vehicles, with options to configure if vehicles receive force from explosion and how much

INVENTORY

Added inventory management of weapons, so now they can be stored and equip/unequip them there. This new inventory management allows also to use a sub list with slots to assign the weapons in the inventory to the key numbers of the keyboard, by dragging and dropping. This also is used for the weapons order if you use the mouse wheel or the action buttons to change to next and previous weapon. If you don't use the drag and drop action for the weapons, when one of these are equipped, the slot for the key number assigned to that weapon is the first free found. Also, you can unequip any weapon by drag and drop it from the slot list or change its slot position for another. of course, this sub list can be disabled in the inspector if you don't' want to use it

Added option in the inventory system to configure the default, maximum and minimum field of view for the render camera in the inventory menu to see the current inventory object selected, to view every object properly without matter its size

Added option in inventory capture manager (the tool used to create icons of the inventory objects using their meshes prefab) to allow to take captures with transparent background

Added option in inventory bank to allow to use the option drag and drop and also, when an inventory object icon is just pressed, enable also the menu to configure the amount of units of that object to transfer from inventory bank to player's inventory or vice versa
Added new attributes to inventory objects to configure if they can be equipped and if they are equipped. These fields will be used for armor and weapons

Weapons can now be managed by the inventory, so to equip and unequip them, it can be done through inventory. When a weapon is picked, it is stored in the inventory and there it can be equipped and unequipped. There are different options to configure if a picked weapon is directly equipped or not. Also, weapons can still being used without inventory, and be managed as previously if the game will manage weapons separately from inventory

Added option on use inventory object system to show the name of the object to use and the amount needed in every different object where use inventory objects

The code to solve an use inventory object component (call the event when all the necessary objects are used) is now separated in a function, so this allows to call this function directly from another event. For example, a simple padlock with a health component and an use inventory object component could be opened by using a key, or by damaging the padlock which will call the death event (in this case, this event will call the solve function of the inventory object and trigger the next event)

Added button on inventory menu to examine objects, so a panel is activated showing a bigger image of that inventory object over the inventory menu, showing also the name and a description of that object, similar to the inventory examination in resident evil games

Added inventory loot on characters. it is the same inventory bank system, but it assigns ingame the inventory list to use (the one configured in the bank inventory manager or a custom one, configured in the character). But this can be configured in any other type of object besides NPCs,

including any kind of AI, like enemies, animals, monsters, robots, etc... in the same way as the drop pickups system. it is the same inventory bank system and HUD window that was already made previously, but now, it allows to set a custom inventory list instead the general content in the inventory bank in a separated component, allowing to have any inventory list to loot in any character.

There are also a few options to select if a weapon is equipped automatically when it is picked or not, if the player draws a weapon when is equipped or not or he draws the next weapon available when the current weapon that he is using is unequipped, and more similar configurations. Finally, these weapons can also be stored without problem in the inventory bank

VEHICLES

Added option for vehicles to use smooth camera rotation for any view configured in them, setting separated rotation speeds to first and third person on vehicles

Added unity events to vehicles called when the driver gets on and off and when the vehicle is destroyed

Added option to vehicles to drive them remotely, without the player physically inside the vehicle. In this mode, the player will still in the same place where he started to drive the vehicle. Once the player gets off from it, the camera will be back to the player's original position

Added radio control vehicle size using the car prefab

Added option on vehicles to hold jump button to add vertical force in up direction while the button is pressed

The car controller can now have wheels powered and steerable at the same time, for example, applying torque to the front wheels

Added option on vehicles camera to set camera rotation to zero, so the camera rotation is fixed, so for example, it allows to configure a top down view similar to gta games

Added option on vehicle weapons to allow to rotate the weapons turret towards the position of the hud cursor when the camera on vehicle is not used, for example for a fixed camera position, like top down view, so the weapon can aim very accurately to any target and position

Improved vehicle weapon system, now it allows to shoot freely on locked camera while the player drives the vehicle, just by moving the mouse on the screen, setting the position of the cursor where the weapon will fire

Added option on vehicle weapons to configure custom reticles for every weapon separately, along with options to set the color and size of the reticle. Also, another option allows to hide the reticle of the vehicle weapon after x seconds if it is not being fired

Improved vehicle camera controller, allowing to set separated zoom settings for every camera state, including options to allow to use zoom, zoom speed and camera rotation speed when zoom is active

Improved initial camera rotation on vehicles when the player gets on, checking better the current view and setting the rotation of the player camera to the vehicle camera. This is also checked when the player gets off

Added option to eject from vehicles and activate the free floating mode on the player on that case

MAP SYSTEM

Added a new 3d map system option, allowing to show the map window in the map menu in 2d or 3d mode

This system creates these procedural meshes using the same vertex that the map part tiles uses. Like this, it has similar aspect to the map system used in doom 2016 or metroid prime series. The 3d meshes can have any shape and the height can be configured in every separated mesh
The map camera makes a smooth transition from orthographic to perspective and vice versa. Also, every map tile has an option to generate or not the 3d mesh, and in the main map creator, it can be configured if these meshes are created or not more quickly, so you can select which map parts will have a 3d mesh and which not

Also the map menu has a new aspect with a better distribution (the menus from Deus ex are a good example to work), showing a bigger map and more options (of course, UI is really flexible, so you can customize it as you need).

Added option in map to reverse the list of vertices for a map part tile, so the order of these vertices are in the opposite direction of the clockwise to generate properly the 3d meshes of the map, in case this option is used

Added modification on the map system to allow to make "buildings" or new map zones, instead of the current system which only has one "building" to configure
This allows to configure different map zones in the same level, for example a small city where the map window shows that city and if the player enters into a building, the map will change to show the floors of that building having different maps for interior and exterior

Also, this system allows to see every building/map zone in the map menu, and inside every map zone, every floor configured in that map, setting the camera over a default position to make it visible in the map window without need to move the map camera position

Added option to show a cursor on the map menu, and any icon below this cursor (with a configurable max distance from the map cursor) will be selected as current icon to show its info on the info panel of the map window. Also, this can be used as a reference point to know where a mark is placed in the map as a position configured by the player to reach later

New option on map object information (the component used to assign a building and a floor to an object to set an icon on the map window to follow that object) to link its information with the icon which follows it on the map system, so both elements can share and update their states according to the situation, so for example, the icons on the map can change the building and floor where they are shown. This means that for example, if an enemy follows the player inside a building, the icon of that enemy on the map will change from the outside map to the inside map, allowing to the player to know his position in every moment

New option added on map object information to call an event when the object associated to that map object changes to a different floor or building, with options to call separated events when its floor and building are the same show in the player's map. This allows for example to show or hide

the AI field of view mesh if they are in the current floor and building than the player, or disable in the other case

Added map object information to the player to show and follow his icon on the map, instead of using a separated icon for him (any of these two options can be used)

Added function on map system to follow another target instead of the player, for example, a vehicle that he is driving remotely, so the player's map icon is on the map, in the current position he has, but the map system follows that vehicle on the map window. When the player stops to driving remotely, the map system follows the player again

Added option in map tile builder to remove that map part directly in that editor, avoiding to change to the map creator inspector and select the map part to remove, searching its building and floor

Improved map object information components (the one which manages map icons on the map window and in the screen), and now they can be reused to be enabled and activated according to how they are needed, for example for an objective position, once the position is reached, the script was removed from the object, now it can be kept or removed
Improved locked camera system to make smooth transitions on cameras which follow the player's position to make smooth movements from the current pivot which contains the camera to the new pivot position

Added a map camera orientation system to change between the axis XY, XZ and YZ, so the map camera moves horizontally for regular map, or vertically on Z or X axis for 2.5d level type, including transitions for any kind of camera change ingame. This system uses triggers to work, allowing to place any of them on any part of the level to make this orientation change in any moment

Added option to set a random color on every map part (every tile of every map part of every floor of every building) of the map system

AI

Added system to make characters to sleep for a certain amount of time, with options to configure if they only awake when they receive damage, or even with a sleep duration, if they away on damage too. This system has a simple script to place the classical sleep Z letters moving from the head of the character until he awakes

Added visible field of view mesh to AI on the map window, with options to use raycast to cut that field of view in the places where finds a surface

Improved detection of targets on AI when it gets up from entering in ragdoll state (from damage, being sedated, etc….)

Added gizmo for the vision range of AI, to make easier to see how much can see around it

Configured functions on AI with field of view on the map to hide and show it according to if the AI is sedated or not in case the player or any other character shoots at them with a sedative ammo type

Added a raycast option to check if an AI is seeing physically its target or not in the moment they are detected, so they can follow it or not. This is used for example to avoid the AI to follow a target if it is detected when the target is behind a wall, so even if the target enters in the range trigger of the AI, until the AI doesn't see it, the AI won't move. This also, takes into account the range of view of the AI (a certain amount of degrees from 0 to 360, according to how good are the senses of that AI), so both conditions has to be true to chase it (in case the range of view is used)

PICKUPS

Added attachment for weapons as pickups, so these attachment can be configure if are enabled or disabled at the start of the game and the pickups will activate them in the weapon

These pickups has two string fields, to configure to which weapon belongs and which attachment activates, so they can be related to just one weapon. Also, there is an option to use universal attachment, so if you are using a weapon with x attachment disabled and you take its pickup, the attachment in that weapon is enabled. Also, if that attachment is already enabled in the weapon, the pickup is not taken

Improved pickups system, if they use the interaction button as option to pick them, while there is amount on these pickups to take, the interaction button text doesn't disappear and the amount text is update in this text

Added option in take pickups system to hold the interaction button x amount of time to take all the pickups around the player (similar to borderlands). The pickups can still being taken one by one with only one press of the interaction button

Added option on pickups to show the info related to them when the player take them, allowing to show also an icon of the picked object
Removed all the sendmessage functions from vehicles, being now managed by unity events, for a better customization

Added option on examine object system to configure a list of positions where the player can press while he examine and object, like buttons or switches on that object, which will trigger an event configured in that list. On this list it can be configured if pressing a position in the object shows a message and the amount of time that is shown, the event to call, if the event sends the current player or not, if after press this position the player stops examining it, if the position can be pressed only once or any amount of times, if it plays a sound on press and if the object can't be examined anymore once a position is pressed. On this list it can even be configured if the positions have to be pressed on a certain order or if press a position, enables another one in a different place of the object. It allows also to pause the interaction button of the player for example to use functions with a delay of time, to avoid the player to stop examining the object while the event has finished

Also, with this new options another component has been added to allow to give to the player any inventory object with any amount configured in the inspector by calling its function. This function checks if the player can carry that object and its amount in the inventory, avoiding to give him the object in other case until he has enough space, showing the message of full inventory on the screen. Finally, instead of give an object inventory to the player directly, using the events, other ways to do this can be achieve, like place an actual inventory object inside a box and open it and enable that inventory object inside of it using the examine places list

Improved examine object system, now allows to reset the object rotation or position separately or both while the player is examining an object

Improved and simplified pickup icon manager, allowing to configure easier the pickups used in the game along with configuring icons on screen that follows the pickup position and the info shown in the screen when they are taken by the player

Added events on pickup object to be triggered when they are taken by the player or any character or vehicle. There are options to call an event if there are remaining units of that pickup, in case they are not totally taken

All weapons pickups have been configured to be managed as inventory weapons too, without removing the previous weapons pickups. The last weapon pickups group allows to activate weapons and use them without stored them in the inventory, so games types like doom 2016 can be done without need to manage weapons on inventory

TUTORIAL SYSTEM

Added ingame tutorial system to show information in the screen about the game, a mechanic, a control mode, advices for the player, etc.... that you could need in a game. This allows to show text, messages, images, anything you need.This is also useful to configure the demo scenes, to show better the actions available and explain them. This system allows to activate any tutorial panel by events, like a trigger or an action in the game, and can has as much panels to show as you need. Also, the player can see the next panel by pressing any button or an UI element on the panel (if the tutorial settings unlocks the mouse cursor)

Added different tutorial panels for every group of actions (basic controls, weapons, powers, gravity system, menus, etc...), and in everyone has been another panel, to explain quickly those actions which require to hold and release a button, those that can be only used in specific modes or situations and similar. Also, the tutorial system already allows to see the same tutorial panels and elements that are activated by triggers or events in the pause menu, so even if you jump a page of these tutorials, you can check them again there

Added option in the ingame tutorial system to configure videos to be played on it, with options to play in loop while the tutorial is not closed or close the tutorial when the video ends

New option added on tutorial system to set a custom time scale while the tutorial is active, for example, to slow the time on a tutorial that is shown close to enemies or in a dangerous situation, so the action can be slowed down or totally paused

POSSESSION/OVERRIDE SYSTEM

Added the possession system (or override system which is the name used on the scripts), which allows to possess and control literally anything, from vehicles, turrets, characters and any object draggable on the level (very similar to mario odyssey and dishonored)

There are two ways to activate this ability, use a new power added in the powers manager by aiming and "shooting" to the object to control or use the smartphone and take a picture of that object to possess (both actions call the same function in a new override element system, so you can call this ability from others places if you need it)

When the player controls another character, he can do the actions which that character can do, like shooting or use the close combat. Also, similar to dishonored, you can attack to enemies of the same faction and they will only attack to that partner, instead of the player, so it is an ability really useful to avoid direct combat

For vehicles, added also a new option to make the player able to drive it remotely, without the player physically inside the vehicle when he use the interaction button on it. So for example, you can drive or attack enemies without worry the player dies if the vehicle is attacked or destroyed. But if you stop the remote control, the player will still being in the place where this control started

Also, there is an option to hide the player while the possession/override is active, so in that case, when it finished, the player will appear close to the object controlled
If an object controlled by the player dies or is destroyed, the control is disabled and the camera is translated back to the player, with smooth transitions when the possession starts and ends. Also, to end it, just press the interaction button once

Also, to control rigidbodies, a default override controller can be added to the player and along with it, custom override controllers can be configured in specific objects to control, so different values can be configured on that controller, like camera position and height, speed, rigidbody values like mass, etc….

More improvements on the possession system. Now the option to reappear close to the object is smoother and allows to add force to the player, like he is jumping out of the object controlled. Also, there are options to configure events when the possession ends, for example, killing the character you were controlling.

Improved control of rigidbodies for the possession system, allowing also to impulse the object adding force to it by input, in the camera direction

Added option to no translate the camera to the hidden place if the player is on a fixed camera position zone, so now it can be configured if the camera is translated or not, no matter if the camera is in free or locked mode. An use of this is to hide on a fixed place, like a locker

GRAVITY SYSTEM

Added zero gravity control mode, similar to an astronaut, or to dead space 2, in any view and any moment in the game. This allows to move freely in the scene, making the player to face the camera direction which on this mode, can rotate freely without losing the local direction, so the camera movement is very intuitive on this mode. Of course, this mode doesn't affect the physics gravity on the scene, so you can leave it with its value or modified as you need. While the player walks on the ground (or any other surface), he is adhered to that surface. If he player jumps, then he can start move freely in the air

The zero gravity mode can be enabled/disable by triggers, with the system that was added to set any state of the player, like make him to change from view, draw a weapon, lock his movement, etc.... so you can use this trigger to move from regular gravity zones to vacuum for example (there will be more systems to allow to create more types of scenarios like spatial stations, making objects to float or to activate its gravity according to the level part where they are)

On this mode, you can reset the player's rotation and also, adhere to any surface in front of the player if he is close enough to it This surface adjustment can be also achieve just by getting close enough to the surface (all of this can be very customized in the inspector). And finally, on this zero gravity mode, the player is able to draw and use his weapons and powers as well and can aim as well

Due to the zero gravity mode, it is necessary to have this kind of system in objects too, because in an spatial station, sometimes there are zero gravity or altered gravity on some rooms and the objects inside of it are floating or having a different gravity direction. So a system to configure gravity rooms has been added, using a combination of triggers and waypoints to define a perimeter. Like this, the room can have any size and number of doors or entrances and the system knows when an object enters or exits the room, setting the gravity of the object to the configured in the room or setting as regular. If an object exits a room (by itself or thrown by the player) and immediately enters other with another gravity value, it is configured too

Also, this gravity direction can be any you need, from zero gravity to upside down, etc... (basically you set the rotation of an empty transform as the gravity direction on that room). And of course, none of this affects or modified the Physics.Gravity direction and value of unity, so you can configured any other value or use the regular value. So the gravity zero mode on player can be combined with this system, very similar to how dead space 2 and 3 works, where player can grab floating objects and when he drops, they still having the current gravity on the room
Improved footsteps manager state for colliders in every foot, enabling them with a delay to avoid false steps when the player's body model is enabled or disabled, for example, using devices

Added option on zero gravity mode to allow the player to move vertically (along with right, left, forward and backward), by holding the jump button, using the vertical input to apply force in up and down direction, so while jump is being pressed, the player can move vertically in his local up direction, in other case, he moves horizontally in his local forward direction. In both cases, he can still moving in his local right and left directions

Added option in gravity room system to configure if the characters are affected also by the gravity direction inside the room, setting a new gravity direction, enabling the zero gravity mode for the player or disabling the extra gravity forces on him and setting the regular gravity direction. Also, there are new functions added to modify in real time the gravity inside a room for both, objects and characters, so for example, zero gravity can be enabled in a regular gravity room and vice versa, by using events, buttons to press, etc…

Added option on gravity system to make the player adhere to edges while he is circumnavigating an object, so he can move through any kind of objects that had hard edges, like a cube, low poly meshes, etc… Along with this option, another allows to adhere to walls on this state, similar to the run power option, but without need to run. Both options works on any movement direction, forward, backward, sides, diagonal, etc…

Added options in the gravity system of the player to allow to search a new surface if the current fall speed is higher than x value. Also, another option allows to configure if the camera shakes when the player is falling at a certain speed

Added options to rotate the player in his Z local axis while he is in zero gravity mode

For zero gravity mode and free floating mode there is an option to configure a higher body rotation if the player is increasing his speed (holding run action), so like that the player seems that is moving faster and rotating his body according to the movement speed

Improved gravity power ability (the one managed by component other powers) to change player's gravity too using the secondary action button (by default, mouse wheel press). It has also options to push characters and change gravity on vehicles too

Gravity system has been adapted to work on 2.5d mode, so the player can use gravity triggers to set any gravity direction. Also, free floating mode works on this mode and in the rest of locked camera views. The gravity system will be adapted to regular locked camera view on 3.0

Added option to configure circumnavigation for regular rigidbodies, by adding an extra function to set the normal direction as a center point (on regular rigidbodies it is not possible to use a normal pointing down as raycast, since the rigidbody rotates in any direction, so a center point is used instead for this kind of rigidbodies, in a different way than the player). Like with the player and vehicles, these objects can enter in the attraction field of other objects and exit from them too

Added the option to configure multiple gravity points for rigidbodies on an object to circumnavigate, so every rigidbody is attracted to the closest one. This allow to set any kind of shape besides spheres, and the player can even pick objects on it and the gravity will be applied properly (this was already added in GKC some updates ago). Also, there is an option to inverse gravity direction, that can be called from external components, like events so you can have reversed rooms, like an sphere or any other shape, and the objects will be pushed toward the walls instead of a center

INTERACTION ELEMENTS

Added more action screen elements, like in locked hide system

Added option in locked hide system to use zoom and different field of view value for camera

Added option on jump platforms to set a position where any object that triggers that jump will be launched, using a parable to reach that new position, allowing to chain different jump platforms

Added event to call on interaction message system, so when the player checks a place to examine, an event can be called every time he checks that place or just once

Added options to multiple interaction elements to enable or disable them to being able to use it, like use a teleport platform, zip line, jump platforms, etc… This allows for example to enable or disable a teleport platform with a simple switch in the level, so the player press the switch in a part of the level and the event configured in that switch activates the teleport platform in another place

Added an outline shader option to grab objects and use devices, allowing to set the color and the width of the outline so you can see better what object can be used. This option can be configured separately in any object that can be grabbed or any device to use, allowing to set settings like color and outline width in a certain object. Along with this option, the functions to change an object shader when is grabbed (transparency) or can be used (outline) has been moved to a separated script to manage any other shader management in any object, to make it simple to add or remove if an object doesn't use this option

Added a better system to place objects into places, similar to dead space games where you place batteries to give power to stuff, pieces to activate other elements...., practically any case. There was already a similar system in GKC but it wasn't the best solution, this is much better, and works similar to the puzzle system to place pieces into different locations, triggering also events when an object is placed or removed. The system only needs an object string name to know if a certain object can be placed or not (for example, an object searches the object with the name "Battery", this name is configured in a simple script inspector, not in the name of the gameObject itself). It has also an option to place the object on its place in case it has been grabbed but not moved farther than x distance, so if the player drop the object, it is placed again on its position. If the object is moved farther than that distance, the object is configured as removed, calling the functions and events for it

Added system to configure puzzles or objects to examine where the player can press a group of objects or positions configured in the current object he is using, triggering events that are configured in the in the position list to press. This allows to make puzzles as the piano example, where the player has to press a serie of keys in a certain order (the order can be disabled, so the it just needs that all keys are pressed), playing at the same time, a song

Added piano system with the above press object system. It allows to configure a list of notes and the sound of every note. Also, it allows to configure sheet music, to check if it has been played,

with options to replay that song once the player has played correctly

Added option to quick travel station to being activated at the start of the game, so the player doesn't need to reach them to use them
Improved quick travel stations, they now configure correctly the current map building and floor on the map when the player uses them

New option on devices to configure separated positions for the interaction icon for third and first person, this can be configured on every device, so it can contain different positions for all of them if it is needed. Also, there is another option to place the interaction icon in a locked position on the screen, without following the current device to use

Improved rail mechanism, allowing to configure new options like move to the initial position if the player drops it, to simulate a big door is closed due to gravity. Also, it contains events to trigger on different states, including when the rail is placed in its final position

Improved move device to camera and move camera to device (the systems that place the an object like a padlock in front of the camera to examine it and the system that moves the camera towards a device like a computer, allows to configure if the player keeps his weapon if he is carrying one currently along with another option to draw it when he ends to use an object or device. Like that, the weapon is hidden from the camera to have more space on the screen

Improved waypoint platform, allowing to check if there is any object below it to avoid to move through objects that are between the platform and the ground. For this, it allows to check objects with specific tags, as the player, objects to grab, etc…. Also, the platform has a list of tags to configure which objects are moved on the platform besides the player

Added option on waypoint platforms to mirror movements from other platforms, in the same or opposite direction. Along with this, events can be configured when a platform reaches any waypoint, for example, to make the platform to stop its component and fall, to get a behavior similar to those from Mario bros, joined by a rope that fall if the platform is too much away from its initial position

Added one way platforms, allowing to configure if the platforms are ignored on top (pressing down with or without crouching) and bottom (player jumps from below or from the sides), both can be enabled or just one of them. Also, option to move the camera up and down with an offset using vertical input on 2.5d view. There is also an option to use vertical input on 2.5d camera to crouch or get up

Improved movement and rotation on hide in fixed place system, being more smooth on both now

Added option on move camera to device system (the system used in all the elements that move the player camera to a fixed position to use a device or similar objects) to set a custom rotation for camera and pivot when the player stops to use it, so you can make the player to look in a specific direction after he stop to use any device/object, for example, when he stops to hide in a locker

Improved character creator, if for some reason the automatic system has some issue or hasn't assign the bones correctly, you can use the manual build player (same component used by the character creator) to this The system searches the bones automatically, but you can assign manually those that are not correct, not found, etc... and build the new character. This reduces the possibility of errors during the character creation to 0

Added system to assign if a surface is a stair with real collider (step by step, instead of a slope), along with values to adhere to that surface, including step height and adherence value. The player also has an option to check for these components, so the code to walk on stairs will only be active if this component is found or check for stairs in every moment

Added custom noise system to configure noise mesh on any object that can be triggered by functions or events. This is used for example of the horn of vehicles, so if the driver uses it, the horn state has options to create the noise mesh on the map and the noise call detected on the AI, which will go to investigate the origin of the noise. Like the rest of noises to configure, there are different options in every noise state

Added option to configure broadcast messages on the event trigger system

Improved examine objects system, with an easier configuration of elements and a more simple code and faster

DEVICES

Added option in use devices manager to set as current device to use (element to interact, like pickups, computers, password panels, puzzles, vehicles, …) the closest one to the center of the screen. This allows to a more accurate selection of the device to use. There is also an option to set the max distance of a device to the center of the screen to be set as the current device to use

Added option in computer devices in the asset to use the use device interaction button as another key to write, without stop to use the computer, so this device must be disabled using the red button in the left lower corner of the screen if this option is enabled. Also, fixed issue in the keyboard writing alpha1, alpha2 when a number was written using the real keyboard. Finally, the caps have been improved, allowing to hold left shift to write in the opposite value of the current caps active value (if it is active and left shift is held, the letter will be written in upper case and vice versa)

Added radio system to vehicles using world UI Canvas. It allows to place a folder with song files (for now, in wav format) in the editor project folder or the build folder and load them into the game. There is a lot of options and buttons to use, like play, pause, stop, next song, previous song, play songs in order or randomly, repeat list of songs once it is finished or not, set the volume, set the time of the song, to set the the song to a certain moment and see the name of the song. Also, it can make and show a dynamic and unfoldable list of songs to select a certain clip. There is a general manager of songs which takes the songs of a folder, and the radio system gets these songs list and assign them as tracks to play

Added a little wait time on the computer device to allow to write on it when the option which allows to use the real keyboard input is active, to avoid to write the interaction key on the password when the device is activated

INPUT MANAGER

Improved custom input manager by adding a modification to use multi axes (the previous version of the input manager only had an axes list to configure, so now, there is a list of list), to allow to configure any amount of group of actions focused in certain actions, like powers, weapons, vehicles, interaction, etc.... Also, the list works in a similar way to other list from the asset. There is a general list of multi axes configured and then the player input manager takes that list to being able to configure its values dynamically. This new input systems allows to configure the type of press (down, hold and up) with the same action (for example to start to shoot, to hold key to keep shooting and release key to stop to shoot) from the same inspector along with the event which will trigger to press that key. Like this, the input is totally configurable from the inspector without need to add any code, but the previous functions won't be removed, so you can add input action from the code too

Added option in input manager to ignore any gamepad connected

Added field action enabled value from every axe action to the info save in the input file use in the custom input manager, to save/load properly if an action is enabled or disabled. This allow to disable an action from the input without need to remove it, so it can be enabled later for debug for example

Improved edit input menu, now allows to edit gamepad keys in game, so the system edit input menu detects which input system is being used and shows the control keys according to it, enable and disabling the current input to edit, gamepad or keyboard. Also, the system checks if a gamepad is added or removed while the edit input menu is open, so if you are using the keyboard and connect a gamepad in that moment, the keys shown for every action will change in real time to the gamepad keys names and vice versa

Performance improvement related to the custom input system, avoiding to call to input functions when these actions are not used

Added new override input system for the possession system, it works very similar to the new system on the player (added on 2.4d), to configure a list of axes and using events, allowing to customize any kind of new character/vehicle/rigidbody/thing to control very easily, settings its actions. This makes easier to add new elements to control, for example, if you have an animal with its control logic, with a couple of components, you can configure its input actions and possess it too, or even make a game just controlling that animal without using the actual player character

POWERS

Added ability to powers to teleport from the current position to another one found using a raycast at a certain distance (similar to dishonored 1 and 2). This ability is used by holding the run button while the player is not moving, aiming the camera to any surface (if not surface is found, the position to teleport will be forward in the air) and release the button to move the player toward the position found. It has options to slow down the time while the player selects a surface, if the player's force gravity down is paused or now on this mode and configure a mark object to show better the position to move

Improved powers system to being as customizable as weapons, allowing to add and configure new behaviors, including different events for press down, hold and release and a secondary option (by default pressing the mouse wheel). Also, some code has been removed from the main powers script and placed in separated components, being these the powers which don't fire projectiles but have other effects, like the one to exchange the position of the player and other object, change general gravity value of the level, push objects, etc.... so now these are configured and triggered by the above events. This makes the powers manager script cleaner, the configuration of powers better and more customizable and the management of new power behaviors easier

Added new power to activate devices at distance

Powers can now be activated with pickups, allowing to configure all the abilities and powers of the player in a list, with a name and an event to call to activate and deactivate every one of them (in case it is necessary to enable or disable a certain power or ability in specific moment of the game). This allows to get a progression in the player similar to other games like Metroid and similar genres. This system also manages the wheel power selection menus, so only those powers enabled will appear to be edited or selected in this menu

Improved power wheel selection menu, being similar to the wheel weapons menu, so it works smoother now and also it is configured dynamically in game, showing only the slots of the enabled powers, setting its position rotation, icon and text info properly

Improved join objects power behavior, allowing to use on vehicles now, so the player can make a vehicle to be attracted by another object or a surface

OTHERS

Added option in menu manager to only close the player menu currently active (like inventory, map, etc… if it is activated) instead of close them and pause the game when the escape button is pressed

Added blur option for the camera when the game is paused or when a player menu is activated to show a smooth blur in the bottom of the game window

Added new component to override scroll rect drag actions and avoid these to move when the player is using the inventory bank (dragging and dropping objects) or equipping objects or weapon in the inventory menu

Added option in screen objective system (which manages the icons on screen to show position and distance to a target to reach for the player), to change or not the target materials color to a certain color while the target is not reached

Added triggers to configure in game states for the player, like change from third to first person, draw or keep a weapon, disable the option to change between cameras, enable or disable the ability to use powers or the gravity system, enable or disable input actions, etc…

Added console mode to open a command window where any kind of function can be configured, like spawn objects and the amount, set states in the player, like being or not invincible, or make the player to do a certain action, like change camera view, or draw weapon, etc…. This console mode allows to use arrow keys to change to previous or next command written, use tab to autocomplete commands, clear the console, get list of commands, see objects name list to spawn, etc…

Like any regular console in other games, it allows to write text (with a list of allowed keys), delete (allowing to hold it and the text will keep being deleted), use enter to execute, use caps, shift to change the current caps state, use tab to autocomplete the command and keep pressing it to select the next command which starts with the same first letters written, use key arrows to change between all the previous commands.

Also, it allows to write parameters, it contains a command for help, to show the command list and its description and clear to remove the screen. Also, with the mouse you can move the text to see previous content.

As example, it contains 35 commands, but it can contain any number, to do any action you could need, due to it uses unity events, sending parameters with bool, amounts, both or without parameters. As you can see, it is possible to spawn objects, give inventory elements to the player, activate attachments, get ammo or weapons, change player stats, kill certain elements in the level, take x amount of health from player, the current vehicle driven, destroy the current vehicle the player is driving, add or remove health, fuel, energy in the current vehicle, set if the vehicle is invincible, has infinite energy or fuel, etc...

Added option in the head track system to make the player's upper body rotation to follow the camera direction, similar to the head track targets, with separated range values for the look direction limit for horizontal and vertical camera rotation along with weight values for head and body. Also, head track now works properly in any gravity direction
Added option in gravity system to start the game with a modified gravity direction, using a normal value, of the current player's rotation directly

Added option in the head track system to look in the opposite camera direction when the look in camera direction is out of the configured range, to give more dynamic feeling to the player. Also, there is an option to look to the full range of this opposite direction if he is moving in the opposite camera direction, like he is looking behind of him while moving

Added component to place the player and camera in front of the camera editor position by pressing a button in the inspector, allowing to move easily the player to a certain position to test any element of the level quickly without need to adjust manually the position of the player. It uses a raycast to place the player properly in a ground surface

Added option in the head track system to configure a custom layer mask to uses other different form the one configured in the current character, so different objects to look can use different layermask to check if there are obstacles between them and the character that will look at them

Improved character creator, simplifying its code and making sure it works properly with the new elements added. This change on the code will make easier to add new elements due to know, it moves the main objects inside the player's model from the previous to the new one (previously, these objects were removed and replaced, so the references on inspector were needed to be assigned again). With this way, the system just set the parent of these objects, so the references are untouched

Improved decal manager, now every surface can be configured to activate or not noise (the mesh on the map and the function on AI to look at the impact position) on impact. This allows to avoid that the impact of a projectile on a humanoid character produces noise. Like that, the same projectile is able to produce noise on certain surfaces and avoid to produce on others, like flesh

GAME MANAGEMENT

The code which manages the bar sliders on the health component for everyone but the player has been modified, and now all the bars are managed by a separated component, so every object with a health component send its info to that new component to manage its state, position, values and update them, removing the slider if its target is destroyed

Similar to this, the code that manages the pickups icons has been also translated to a separated to component, to manage there the position, state, etc… of every icon. This has been made to make easier to enable and disable the dynamic info on the screen (health bars, objectives positions/marks, pickups icons, etc…) easier. For example when the player is using a device, setting the attachments on a weapon, using a menu, enabling a cinematic, etc…. to avoid to have too much elements on the HUD when the player needs a cleaner space to manage certain element.

Another reason to this is to make all these screen info components separated and independent in every player, for the future local multiplayer with split screen, so every player can have his own information on screen without matter what the rest of players are doing. Also, it has two separated layermask, used for a raycast in third and first person, used to check if these icons can be show on the screen. Like this, any icon on the HUD is disabled if the player is in third person and between the camera and the icon to show and enabled again once the player is not between them, something not needed on first person

Added initial version of the objective/mission system, including an objective log menu to see current and complete mission list, with name, description and location

It allows to send multiple event calls as subojectives for every objective/mission, to complete it, similar to the press object system (used along the puzzle system to make different of quiz/jigsaw/puzzles, like the piano which needs to press different keys in an order to play a song and trigger an event.

For example, in a part of the new level, there are three buttons, so once you press the three buttons, the event triggers the activation of an elevator door and a waypoint platform in the lower ground to reach the elevator zone.

There is an option to configure if the subobjectives are added into the map system as icons and also, show them in the screen..

It also allows to configure if the list of subobjectives needs to be done in order or not, have a time limit, give extra time for every subobjective complete, add objective icons on screen and map to the place of the target (with option to select if these map icons are shown at the same time, one by one or if x time for example, if the player is not able to find them in 2 minutes, these are shown in the screen to help him). It also has options to configure a general mission name and description to be shown in the screen, and this info can be updated with every subobjective info, which contains another name and description.

It has more options and more will be added in the next update to extend its functionality.

Along with this system, it has been added a separated component to manage the mission/objective log with an ingame menu, similar to breath of the wild (it was the first example that came to my mind), once a mission is activated or triggered, it is added in that log list, so you can find more info about it there. If the mission fails, you can activate it again from that menu or cancel it. In the video only one mission is shown, but it can store any number of missions and once is complete, the icons shown in that element list changes.

This mission log doesn't store the info in the save system yet, but it will do it in the next update (any remaining element which is not stored yet between games, it will be included in the next update).

ISSUES/BUGS FIXED

Fixed bug in projectiles which were destroyed properly when the raycast shoot is enabled and the weapon is fired without a surface in front on it (shooting to the air)

Fixed error in vehicle gravity system due to an incorrect assignment of the player variable
Added option to allow to unlock the cursor on vehicles, so the player can use a vehicle interface with the mouse very similar to star citizen (with a world canvas) to manage different stats in that vehicle, like change velocity, eject the player, activate or deactivate weapons, etc…. The system allows to configure any action needed, using unity events which allows to send dynamic parameters, like a boolean from a toggle UI element or a float from the current value of a slider

Fixed crates with pickups not instantiate the objects inside due to a not correct configuration to call the event to drop those pickups

Now the inspector in player weapon systems shows the weapon fire rate, no matter if the weapon is automatic or not

Fixed jump platform issue on vehicles, where the impulse applied was detected more than one times due to multiple colliders on vehicle, so the impulse could be too high, now the vehicle is detected just once without matter how many colliders it has

Option to enable or disable the jump ability fixed in car vehicle (the variable was assigned, but its value wasn't used)

Fixed error on move camera to device, the player weapons manager of the player wasn't searched in the proper gameObject

Fixed an issue on padlocks and other devices with rigidbodies, that was causing that their rigidbodies were configured as not kinematic and with gravity, when they were put back to their place after examine it, due to a function the system to move a device in front of the camera

Fixed issue with head bob on first person, where some states were called on jump start if the head bob option to use it was disabled (the system was calling the function without checking if the head bob was used or not)

Fixed issue with walking on slopes when the player is aiming or moving in first person, the system was using an incorrect ground adherence value

Fixed bug on ragdoll where the code was trying to access to a component not assigned yet, causing the ragdoll to not being disabled at the start of the game
Added option to teleport platforms to call events when the player uses it. There is an option to call the event on every teleportation or just once

Fixed bug when the camera was changed to first person in editor mode, which didn't call the grab objects activate function correctly to allow to grab objects in that view

Fixed footprints rotation, now they are placed correctly on the surface where the player steps, setting the same rotation of the foot

Fixed bug when the player died and the option to drop current weapon is enabled, the system didn't check if the weapon wasn't active, so it was dropped every time even if the weapon was not active to be used by the player

Fixed issue on the character creator related to the creation of the player in an empty scene, as the system uses a prefab manager system where the path of the different prefabs are managed, so if there wasn't a previous controller in the scene, the prefabs manager couldn't be used to get the prefab path. Now this is fixed, no matter if the character is created in an empty scene

Fixed bug when a vehicle is destroyed, as the interaction system detected the vehicle as usable by the player. Now, even if the player has a vehicle inside of his interaction range, if it explodes, the vehicle as a device to use will be removed from the list of devices to be used by the player