CATEGORIES:

PLAYER CONTROLLER

- Changed all animator.set functions to use an integer ID to set the different values of the animator in any component that manages any of these values, to make these management faster that using string. For this, there are string fields in the inspector of these components to configure the name of the animator parameter and at the start, these string values are turned into integer ID with string to hash function
- Added functions in the player nav mesh system to enable/disable the navmesh in the player and set a target position without the need to use the point and click (the navmesh in the player is used for this system)
- Improved ground adherence for slopes and stairs (3d models with meshes colliders), with a smoother movement on them and new values for slope adherence with different adherence speed according to if the player is moving up or down in a slope
- Added a small component to turn on and off the player navmesh system and set a position to move, so it can be used at any time, for cutscene purposes or anything else
- Added separate input lerp speed for regular movement and strafe movement, allowing to set different speed for the input of each type of movement and have a more responsive character on each situation

PLAYER CAMERA

- Added a lean action on the camera system. In this state, the camera checks for collisions too, to avoid any clipping
- The editor buttons to change the player's view to first or third person in editor (before starting the game) it doesn't change the parent of objects in that action, avoiding the player prefab from losing its reference to the prefab of the project folder
- Added option to enable/disable camera rotation input before starting the game and added also an input action to enable/disable it ingame too

LOCKED CAMERA

- Added button option on the locked camera system to change at any moment of locked view ingame, with debug purposes
- Added gizmo button to the locked camera system to select any trigger of any locked camera configured in the system to make easier to change the size and scale of each trigger, in order to place them properly in the level and trigger the camera states as needed
- Improved aim system for all views in the locked camera system, being more responsive and taking into account the player's orientation when he starts to aim

WEAPONS

- Improved sway of weapons in first person, adding rotation and movement to the weapon according to the mouse (or camera) input
- Improved option to configure if weapons are carried on player's dominant hand without IK when he is carrying a weapon without aiming it. This new option allows to configure separately if this no IK mode is used on single weapon mode or dual weapon (and inside this option, configure separately this IK option when the weapon is carried in the right or the left hand)
- Added options on change player state system to set states on the player on weapons when he enters or exits a trigger with this component to place the weapon in a lower position and enable/disable the input to fire any of his weapons, for example, when he is close to an NPC, so while he is inside this trigger, the weapon is placed in a lower position and he can't fire his current weapon until he exits from that place
- The remaining projectiles in each weapon magazine is stored when the game is saved, loading that amount when the game is loaded or the level changes ingame

INVENTORY

- Added categories to the main inventory system, so now you can configure any type of inventory object in the general inventory manager and then, you select category and object in the player inventory to add new objects to his inventory, with the same management of dynamic list taken from the general manager. This allows to configure categories such as ammo, weapons, consumables, quest objects, etc… for a more easy management
- Weapons can now be dropped from inventory and player won't unequip the dropped weapon if the remaining amount is higher or equal to 1
- Added options to show or hide the amount of elements stored in every slot if the amount is equal to one and to show or hide the inventory object name on the slot
- Added the classical options buttons panel on the inventory system, so when you select an inventory object icon, a panel with options appears at its side. Iit works like in resident evil and other similar games and the use of this panel can be disabled too or you can disable the buttons in the right part as well. According to what actions can be done in every object, it enables/disables the options available
- Consumable objects can now be stored in the inventory, such as ammo for weapons and combine them with the weapons too, health, energy, etc…, so now, they can be purchased as well in the vendor system
- The inventory system already allows to add new behaviors easily to manage what happens when a custom object is used or combined with other, like attachments or ammo to combine with weapons, or to use health or energy. So similar to the weapons/powers system, on inventory you can add new behaviors for objects easily, so this allows to add any type of inventory object with the action that you need. This has been done with virtual functions, so it is easy to override these functions by new ones from new object behaviors
- It allows to configure custom messages when an object with a new behavior is combined or used, allowing to place keywords on the message to being replaced for the info of the inventory object used, like name, or amount, something that can't be placed on a message in other ways (like the message of 30 units used or the holographic sight combined with x weapon)
- Added an option to use a new panel in the inventory to select the inventory category type to show, so you can sort the type of objects which can be seen in the inventory, showing only one category at a time of a combination of them
- Added weight option to the inventory, allowing to configure weight amount to every inventory object and the total amount the player can carry. So for example, if the player has a total weight capacity of 500 kg and the total amount is 600, the player drops an object with 10 units, each one with 35 kg of weight. While the player is carrying more weight that he is able to have, the weight limit is reached and the events for it are triggered, like consume stamina until is depleted. If the player drops some objects until having a lower weight that his maximum, the events for it are called, stopping to use stamina. This is an example of how could be used

- Added a new action button to move an object from the player's inventory to his hands, as if the object is dropped by the object appears directly on player's hands, similar to breath of the wild, though only an object at a time (for now)
- Added option on the player weapons manager to allow to store any number of the same weapons (previously, only one unit of the same weapon could be stored). So the player can pick these weapons on the level and sell it on the vendor system for example
- Added option to check for weight limit on the inventory before the player takes a pickup from the level, so if the inventory weight limit is reached with the extra weight of that new pickup,the player won't take it. In that case, the system checks the maximum units that can be taken from that pickup, getting the free weight space left on the inventory and picking only the amount of objects which can fit in that empty space. For example, if the player has a free space of 20 kg and he finds a pickup with 10 units of 5 kg each one, he will only take 4 units of that object, leaving 6 units on the ground
- Added option to configure if the player uses a maximum weight of a single inventory object to pick from the level, so along with maximum weight on the inventory, the player can't pick objects to his inventory if its weight is higher than the maximum strength. Like you can carry a maximum of 50 kg, carrying many lighter objects, accumulating that weight amount, but the player strength is 40, so he can't pick a weapon of 45 kg with his hands and neither to his inventory, even if it is empty
- Added the option to use ammo from inventory in any weapon, not combine the ammo with a weapon, which is already present, but also, that the weapon takes into account the remaining ammo in the inventory of that weapon, so when you recharge it, it takes the ammo from the inventory directly, instead of using an independent amount field for the remaining weapon outside of the inventory. So both options will be available, according to the type of game you are working. The ammo can be also combined with the combine option and selecting the proper weapon for that type of ammo
- Added option to configure if the weight limit avoids from picking any object or not, for example, the player can only pick a few ammo projectiles until reaching the current 500 kg of weight limit configured, so the system only picks the amount which won't reach that weight limit, leaving the rest of ammo on the pickup in the level (it takes 4 from the 9 available and leave 5 in the ground)
- Added option to configure if the consumable pickups can be used or not according to the way they are made, like for example, if the player's health is full, health pickups won't be used, with custom message to show this in the inventory, this is made easier with the new system to add new behaviors to the pickups, so you can create new scripts which decides what happens when you combine or use objects from the inventory
- Improved system to give any inventory object to the player which can be triggered by events, like trigger, kill an enemy, open a door, talk with an NPC through the dialog system, etc..., configuring the name of the object and its amount. If the player doesn't have enough free space in the inventory, this inventory object is instantiated and dropped on the level as a pickup from the object that gives this inventory object (like killing an enemy)

- Improved inventory menu to configure the amount of objects to use/drop/select, allowing to configure a regular press and hold speed to increase or decrease this number and a higher speed to make this change faster (for example, if you have 500 units of an object and you want to drop 300, this will allow to select that number much faster)
- Added option on use inventory object component (place to use inventory objects to activate events), to check for player's inventory object when he drives, so you can use this option along with the automatic check to use an inventory object directly on a place while the player drives a vehicle
- Inventory objects has now an option to be configured with an infinite amount, so these objects can be used any number of times, like a lighter to burn on stuff or similar
- Added prefab examples of dialog configured to get inventory objects or enabling the use of inventory objects by talking with NPCs

VEHICLES

- Improved gizmo settings in the IK Driving System, to see better the adjustment of get off positions, use free handles and other visual references for the seats configured in every vehicle
- Added option on vehicle camera to use the camera direction as steer input on the vehicle, setting its horizontal direction to left or right according to if camera is looking to left or right. This option also allows to combine the horizontal input and the camera direction, so you can still use the horizontal input as main steer direction or just use the mouse direction. It can be used on any vehicle. Also, in aircraft I added the right axis control too, so the aircraft steers toward camera direction in two axis. Have to try them yet (only have tried the car) but I am sure they all will work properly
- Added dead zone option in the camera setting on vehicles to use the camera direction as an extra input for the steer (in this case, the regular horizontal input can be used and overwrite the camera steer direction if needed) and it works properly on first person too
- Improved vehicle camera with an even better transition from getting on/off (previously, there could be situations where camera could make some quick displace just only when getting on/off from the vehicle, not much noticeable and even hard to trigger, but it was there, so it has been smashed)
- Improved AI on vehicles to receive external input from the navigation-auto drive system (only using a smooth waypoint system for now, but it will be easy to add navmesh navigation as well very soon)

PICKUPS

- Added stamina pickup to refill the player's stamina with a certain amount
- Added shield pickup to refill the shield of any character with a shield system configured with a certain amount
- Added oxygen pickup to refill the current oxygen of the player with a certain amount
- Pickups are now a more general system which allows to add easily new behaviors for new type of objects. Now, these objects have their own component which manages what happens when a pickup is taken, like add health to the character, give energy, stamina, fuel, etc….
- Added pickup for money, increasing player's money
- Added pickup for experience, increasing player's experience
- Added option to configure a custom pickup icon prefab for every type of pickup icon configured (inventory objects for consumables like ammo, weapons, quest objects, etc…)
- Added pickup to configure experience multipliers, with any amount of multiplier and during any amount of time, including events options on the experience system when the experience multiplier is active and a text panel to show the current experience multiplier amount
- Added pickup for skill points
- Added pickup to increase max inventory weight of the player
- Added pickup to increase max strength to grab and carry objects

INTERACTION ELEMENTS

- Added option to use or not blur for the view to the rest of objects when the player is examining an object, similar to games like resident evil 2 remake
- Added weight option in grab objects, so you can configure how much strength the player has to carry or grab objects, with options to show the current weight of an object detected to grab, with regular and too heavy colors for the text. This can be also used as a stat for the experience system, to increase the player's strength, so he can lift heavier objects
- Added option to show the current amount of objects to pick in the interaction button, which is a separate text from the current object to interact and other option allows to configure the font size on the pickups, so you can configure it to fit the name in the interaction panel if you need
- Added option in the using devices system to show icons on screen for those devices and interactable elements in the level found by the player, so when he enters inside the trigger of any of these objects, an icon will be placed on the position of that object, similar to games like resident evil remake 2, like that, the player knows easily which element can be used. Along with this, an option allows to configure a min distance to allow to use any of these interactable objects, disabling that icon on the screen and enabling the main interaction icon (the one which shows the name of the object and the action to perform with it)
- Added new info panel on screen system, which allows to configure text info and show it on a panel on the screen which follows a position of an object through the screen. Like that you can configure any info to show to the player and make that text to follow an object's position of the screen, like "this door is locked, find another way or a key"
- For these panel system, there are options to configure any panel, so you can use different designs or panel size, they can be configured in a fixed or free position, it can contain a string action which is replaced on the text field by the action key configured in that moment

INPUT MANAGER

- Added options to configure multiple touch button panels, to make easier to configure different control scheme for touch devices, like using regular movement controls, weapons, powers, drive vehicles, use puzzles, examine objects, etc....Like that, you can have different buttons on different organizations on the screen according to the actions that the player is making
- Added check in those elements that show controls keys on the screen when an action can be performed to show the touch control instead of the key text
- Added option to show the full current input action list as text in the input manager inspector itself, including buttons to show only the keys configured or the keys and the name of the actions as well. It has also options to filter actions by keyboard key and joystick button
- Added options buttons in the main input manager to add the panels and buttons used on the rebind menu in editor. This saves the time to instantiate these buttons and panels for the rebind menu at the start of the game, having these buttons and panels stored in the system and used and assigned at the start, avoiding that extra time at the start of the game
- Improved and simplified functions to get movement and mouse input values on any other component of the asset

OTHERS

- I have been changing some UI elements, those used to show player's health and elements related to powers, which are now hidden if not being used, so they are activated when the player changes to powers mode
- Added an option on health component to use a shield, similar to borderlands, wolfenstein and other games of that type, with options to regenerate over time. It will be also able to be refilled with pickups if the option to regenerate is disabled. The sound and particles effect is to show that the shield "is broken", and is triggered with events on the health component related to shield, with events for shield damaged, shield destroyed, shield starting to regenerate, etc... so those effects can be removed from the event or replaced for others
- Dynamic UI elements have been placed in the same parent on the canvas and assigned in the menu pause system to make easier to disable them when is needed, like in cutscenes, using devices and similar situations
- The mission/objective system allows now to use the events options to activate the object experience system, so the player can receive experience from missions/quest complete
- Added debug options in mission/objective system to complete sub objectives or the whole mission with just one click button
- Added button on the camera capture system to take captures at any moment (in editor or playing), with a secondary camera that can be any camera in the level, including the main camera, so you can take captures at any moment in case you need it
- Added events option in the scanner system when it is enabled or disabled
- Added modifications to ignore the player skinned mesh renderer in case this component is not found on the player. This can be used to create UMA characters with the option to just use the skeleton option, to avoid any issue when a character is created with this type of skeleton recipe
- Fixed bug on parable option on weapons to launch projectiles, where the trajectory wasn't calculated properly on long distances. Now, no matter the distance and position, the projectile is placed properly on the surface found at the end of the trajectory
- Improved set gravity system, allowing now to configure if the gravity is changed to zero gravity state too
- Created prefabs for the use inventory objects (the components used to use inventory objects on any place of the level), with different prefabs to use inventory objects by menu, by button or automatically on trigger enter
- Created prefabs to activate player states on trigger, like set the player to just walk and disable any run or sprint action, draw or keep weapons, change to first or third person, lock and unlock input actions, look toward a position, etc...These prefabs have different options configured, like activate these states on enter or exit a trigger or change these states on both situations (for example, set only the walk movement on enter and enable again the regular run velocity, including the sprint action enabled again, like many games do in certain moments). This states components allow to configure a lot of

different states on the player, including custom events (not only fixed options), so it is really customizable and powerful

- Created prefabs for the external camera shake system, so it can be activated by events or triggers
- Improved interaction with elements, avoiding to use any device or pick any object on the ground if the player is using a game menu (inventory, map, mission log, etc….)
- Added general option for the foot step meshes to be used or not (those white circles which are rendered in the map system as a visual element to show the noise made by an object, like a step) and a custom option in each foot step state to configure if this mesh is used or not
- Improved footsteps internal working
- Improved AI movement. Now the AI moves better towards its target, taking into account the real distance (the distance of the path to follow instead of the distance without taking into account obstacles and walls for example) and looking to the proper direction (movement direction or target direction according to distance to target)
- The health component already allows to configure a health bar for the HUD and another which follows its target on the screen, so the characters companion of the player (those which the player can switch from one character to another ingame) can show this health bar when they are controlled as AI, so the player can see their health easily
- The health bar on screen has an option to show a shield bar, which will show the current shield amount on any object/character configured with the shield system, similar to borderlands games
- Added option on health to configure an event to resurrect a character/object after death with a x amount of seconds as delay for the resurrection. The player has also an option in the menu manager to not enable the retry menu in this case, so the player will get up after x seconds dead, without the need to use a "you are dead" menu
- Improved character creator, setting automatically the upper body rotation system value of the chest value for vector up (used for aim properly in third person). This setting needed manual adjustment before, but now it is configured automatically when a new character is created
- Added prefab for adhere to any surface trigger, allowing to circumnavigate any object with the sphere tag without need to activate manually the gravity system
- Added new option in the health system, which allows to trigger events based on the remaining health of the character, so for example, when the health amount is equal or lower to 50 units, it can trigger an event to activate the walk mode instead of running by default, and these events can be called just once or each time the character receives damage and health is lower or equal to each element configured
- Improved teleport platform, now allows to teleport player and an object carried physically on player's hands
- Improved player camera shake system
- Improved character creator system, now allowing to select a previous character to use when creating a new AI, allowing to use a previous AI already created, keeping the same settings and customization from that previous character AI on the new one

- The character creator allows now to select a custom prefab name in the window, so new characters for player and AI can be created using a different prefab, using one with another name
- The manual character creator (which is also an automatic system, but it doesn't use the character creator wizard), can be already used for AI, to replace the model of those AI and keep the same settings and character
- Improved parable/trayectory system for projectile launch on weapons, allowing to configure a max distance for launch when no surface is found, instead of using a fixed distance
- Added prefabs with trigger to pause/resume player actions at any moment, with different types of options, like pause player once, every time he steps on the trigger and resume player after x time
- All UI elements have been checked to be adjusted properly to any screen resolution
- Improved dialog system, with more options, including the possibility to show a character showing his dialog lines directly on screen without pausing player actions or moving the camera to a fixed position, so the player can keep moving while some character is making an exposition. It has options to configure the amount of time each dialog line is shown in the screen after showing the next one
- Added option on dialog system to play voices on each dialog line
- The current dialog of the NPCs are stored in save file now, so they will keep the index of their current dialog lines to talk. For example, if a certain character has 4 dialogues and the player has talked with him the first 2 already, that dialog system will keep its current index to show the third dialog the next time the player talks with him.

AI

- The AI now moves better towards its target, taking into account the real distance (the distance of the path to follow instead of the distance without taking into account obstacles and walls for example) and looking to the proper direction (movement direction or target direction according to distance to target)
- Also, related to situations like what if the AI enemy can see, or knows the players position but can't reach the player's destination or that AI should still shot over obstacle if it has a clear view, if the AI can't reach its target but has a clear vision of it, it will attack if it uses attacks at a distance, such as fire weapons. And also, the AI will fire its target directly if it can see it even if there is an obstacle in the middle, attacking instead of moving toward the target
- With the new option on the health component to trigger events based on the remaining health of a character, an example has been added of an enemy which starts using weapons, if it receives damage on the arms, it will drop the weapon and start to use the close combat system and when its health is lower than 30, it will run away from its enemy, in this case, the player
- Added option to avoid being too close to its target by setting a temporal target position to a random position to left or right of its target (checking if that position can be reached in the navmesh) and disabling that state once the AI is far away enough
- Added options in the character faction system (the element configured on every character to configure the faction where it belongs), to configure if other characters from other factions are checked as enemies and/or turned into general enemies of that AI faction if they attack to that AI, allowing to set different settings on each character, so if you attack two characters of the same faction, they can have different values, and maybe one will make you to turn into a general enemy of the faction and other just being enemy of that character, and the rest of the faction won't have any problem with the player
- Added component to add a patrol system to any AI easily, with just a button click

OBJECTIVE/MISSION SYSTEM

- Added the main structure of the mission system to have mission panels/boards (similar to borderlands), to configure any number of new missions there and get rewards once they are complete
- It has options to configure if a mission checks the level of the player being able to activate it only when his level is equal or higher than the mission level and even if the mission slot is activated when the player has enough level
- Added options to configure a text with the reward which is obtained in every mission, so the player can see what he gets on every objective
- Option to configure if a reward is obtained after completing the mission or the player needs to return to the mission panel to get the reward of each mission
- Added event used specifically to configure the reward for the player once the mission is complete
- Added option to just add the new missions from the mission boards to the player's log menu without activate them or only activate them when no other mission is in process. Like that, the player can just add these new missions to his log menu and activate them when he prefers
- Added the possibility of getting missions from characters (it is just the same system as in the mission board but with options to use a different UI mission panel, but the mission board will keep working in the same way and being usable as well)
- Player can also get missions from talking with NPCs through the dialog system (the dialog can trigger any amount of missions for the player)

ISSUES/BUGS FIXED

- Fixed a couple of issues on the tank controls for the locked view combined with the tank controls mode, moving now properly, including the option to walk instead of run as default movement speed
- Fixed an issue with the gravity power which wasn't working properly on first person when the player was moving on the air searching for a new gravity surface due to the forces applied from the controller movement
- Fixed some IK issues on the player when the animator for 2018-2019 was being used, that was causing that the hands and the weapon positions weren't adjusted properly on certain moments
- Fixed issue on move camera to device component, which caused that on those weapons placed directly on player's hand on draw a bug, due to a coroutine called on a disabled object. It works properly now, enabling the object before calling the coroutine
- Collision detection on vehicles to apply damage to objects works better now (previously, the collision velocity wasn't calculated properly, taking the speed of the vehicle, instead of the collision)
- Fixed an issue on the zero gravity mode, where the player limbs look awkward if the zero gravity state was configured at the start (it was the system not assigning the positions of the limbs properly, due to it seems that unity needs to get just a few frames to get this position properly, not being able to make it at the start, but after a few frames in update)
- The character creator now removes the animator controller of the character model to make sure a second animator is not used on that character, allowing to the ragdoll to work properly

STAMINA SYSTEM

- Added the initial structure of the stamina system. It can be triggered and used by any system and has events for empty and refilled state. It also has settings for stamina amount, refill delays, use rate, refill rate, color for low and regular stamina amount, etc…
- It allows to configure a list of different use for stamina, like configure a state to sprint, which is only activated by the sprint action (through events). Every stamina state has events when the stamina is over (to stop any action which uses it) and when is refilled (to enable again that any action which uses stamina is able to be used again). All r various stamina states can be active at the same time, so the total stamina amount will be depleted faster in that way. You can configure states, for things like run, jump, climb, carry objects, shoot weapons, etc… Anything can trigger and use these stamina states and every state can call states to other components to indicate they can't be used. For example, the run stamina is empty, so when this happens, an event is configured to call the set player able to run state function in the player to avoid him from running, until the bar starts to refill or until is totally filled
- Added prefab trigger to refill the stamina of the player at its maximum level at once

OXYGEN SYSTEM

- Addex oxygen system, which is similar to the stamina, allowing to being activated/disabled with triggers, with events to oxygen depleted and a rate trigger for that event, like damaging the player every x seconds until he refills the oxygen or finds a "safe place", or he just dies eventually
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EXPERIENCE AND STATS SYSTEM

- Added experience system. I have taken inspiration from borderlands for the UI aspect (but like always, it is UI, so you customize it as you prefer)
- It has options to configure the list of levels for the player, including how much experience amount is needed for the current level, skill points to get for every level and events to trigger
- And also, any object can contain experience amount. Right now, the experience is sent to the player with a custom experience script which contains the experience amount. This script is activated by the health component, on the death events, sending the attacker (the element who killed the object) to that experience script, which sends the exp amount directly to the player
- Added a stat system for the player, so there you can configure every stat that the player has, a name, its current value, the event to initialize that value (set its initial value at the start of the game) and the event called when that stat is changed
- And in the experience system, each level allows to configure a list of stats to increase, so you only need to configure the name of the stat and the extra value to increase when the player reaches that level. This will allow a really big flexibility for the experience/level system
- This will make very easy to save and load the stats of the player. The stat system will also allow to configure every possible stat, from regular elements, to weapons, melee combat, powers, abilities, etc....
- Added option to show the total amount of money of the player when a new amount is obtained. Other option allows to show this amount with the new extra quantity increasing smoothly on that total amount text
- The same component that can give experience and money to the player from killing another character/object/NPC or activated by an event/trigger, allows now to give inventory objects to the player as well, configuring the name of the object and its amount. If the player doesn't have enough free space in the inventory, this inventory object is instantiated and dropped on the level as a pickup from the object that gives this inventory object (like killing an enemy). This component also allows to give skill points and unlock skills
- Added option to only show the experience bar when new experience amounts are obtained, during a certain amount of time
- Added component to use (or remove) any amount of any stat of the player, just needing to configure an amount and the name of the stat. This can be used to take or reduce any of these values in any player, like taking health from him due to fire a weapon, using his health to allow to shoot each projectile

CROUCH SLIDING

- Added crouch sliding (not sure if it has a better name), which allows to slide on the ground for x amount of time when the player runs and crouch in first person
- It also has events for start and stop, so I have configured the push objects component into an object in front of the player which is only activated during the slide
- And also, in these events the camera lean is activated as well, there is also options to configure if the player gets up from crouching at the end of the slide or not
- Added option to make the crouch sliding on the air, if the player starts to run previously on the ground before enter in air mode

WALL RUNNING

- Added wall running, inspired form games like titanfall 2 and mirror's edge. It allows to configure things like stop the wall running action after x time, make the player to move down after a delay like if he can't keep running after a while, different impulse values on jump, stop movement and end of a wall reached. The player also stops to run on the wall if he stops pressing the vertical input. Also, the lean is triggered by events, and the footsteps and the head bob are active while he walks on a wall too. And while running on a wall, the player can sprint to move faster on the wall. The stamina could be also used for the wall running if you want, since it has events to start and stop the wall running action. When the player jumps on wall running, if he looks with the camera in a range of an angle in a different direction than the wall, he will jump toward the camera direction, instead of the current jump impulse force by default
- Added wall running trigger zone to configure if the player only has the ability to run on walls while he is inside these triggers, so you can use it to place zones where the player can active and use this ability

VENDOR SYSTEM

- Added vendor system. For this, to configure separated shops (there is an option to configure a single shop list of objects shared for all the vendor places), the inventory bank system has been extended for this, with the option to use it as a vendor manager, with options to assign price and units available So there is a dedicated system for the vendor it self, taking the list configured in any individual inventory bank system and use it to show the current the main system already works and allows to buy and sell stuff
- The system takes into account the money of the player, the number of objects to buy, events to out of stock, not enough money and others, including a message system to show panels on screen separately from the vendor system, so it can be called by events for example elements available to sell
- A min level can be configured to purchase an object, so if the player has a level lower than the level of the object, it can't be purchased. Also, there are options to configure an infinite amount of objects to buy (and individual infinite amounts for specific objects)
- Added currency system for the player, which can be received from the experience system or any other event to increase or decrease its amount
- Added option to store those objects sold by the player in the vendor, so player can buy again any object sold in case it was sold by accident or buy it later
- Added option to spawn objects bought in the vendor system instead of add them to the player's inventory
- Added vehicles as inventory objects in order to make possible to purchase them in the vendor system. They are configured to just spawn when they are purchased and they can't be stored in the player's inventory

LADDER SYSTEM

- Added the climb ladder system in first person, taking into account the direction of the camera with respect to the input, so the player will move up and down according to where the player looks, with different options like allow horizontal movement to exit from the ladder, jump from the ladder or not, center the player in the middle of the ladder when he moves up and down, etc…, even inclined ladders can be configured along with a foot step sound used just for the ladder
- Every ladder has separated configuration, so you can set exactly the ladders that you said separately, according to the configuration you prefer for each one
- Added option to use local movement on ladders, so according to the direction, the vertical and horizontal input are interchanged, like for example, if you are climbing the ladder having the ladder at your left, using the A and D keys will make the player to move up and down, instead of left and right. Same in the other direction with the keys reversed (A will make the player to go down and D up), and the same is applied to W and S

DASH SYSTEM

- Added ground dash for the player on first person, allowing him to move quickly in any direction (forward, backward, left, right and diagonals) during a certain amount of time, which can be configured. Other options include a dash speed, cool down for the dash, option to allow to use this dash on the ground or not, configure a camera state, for example, to lower the camera and move it back to its original position, to give more the feeling of quick movement
- There are two ways to activate this dash: pressing two times the movement input (WASD) at any moment and with a maximum space of times between presses (the player can be moving pressing any combination of keys, so he can make the dash moving forward and to the right for example), taking the current input as the dash direction
- The other way is directly using a key action to activate the dash directly (if no input is pressed, the dash is made forward). If the dash is made in the air, the same movement direction and way to activate is used

CHARACTER SWITCH IN REAL TIME WITH AI COMPANIONS

- Added character companion of the player, allowing to switch between these two (or any higher number) of characters during game, activating the AI in the rest of the characters
- This also adds these AI into the friend list manager, so you can give orders to it and any number of extra companions can be configured
- There is an action to change to the next characters (between all available) and in the friend list manager menu you can change the control to any specific character
- The companion will react in the same way as a friendly AI, which already fights with any possible enemy found. So it brings new mechanics possibilities for games with two characters for coop (local multiplayer is already added) or single player managing two (or more characters)
- It has also options for a smooth transition in the camera
- The others characters will take the current player as a target for the head track
- There is also options to configure if the switch of characters changes the camera view to always first person, always third person or keep the same camera view like in the previous character

CLOSE COMBAT SYSTEM

- Improved close combat system with a more general system (not only made thinking in punches and kicks), but any kind of attack type and allowing to configure any amount of combos, with options for animation parameters, attack duration, delays for next attack, events to trigger on each attack, etc…
- These events allow to configure anything, like for example, on the third punch (end of combo) triggers a shake of the camera and the push of objects which touch the combat trigger on player's hands including activate the ragdoll state of humanoids characters
- Also, for these triggers, in the animator, in each attack of a combo, you can configure a new component made to trigger the events you need

CHANGE LEVEL MANAGER INGAME

- Added level manager ingame to change of scene while playing, using events/buttons/triggers, allowing to configure which scene to load and set the position where the player is spawned and of course, this system automatically makes a save of the game and makes an auto load on the scene to appear, here you can see an example of the typical gate to move to another level, showing that the current inventory is saved as well (and with it, the rest of the info of the player, stats, skills, level, experience, missions info, etc...)
- Like that, you can link levels between each other, and even add multiple connections from one level to the rest. This one was the last important element to add to the update, now only a 2 or 3 new scenes are needed to show the new elements added in this update, something that will take little time
- Vehicles are taken into account when changing of level, so the player will appear in the other level already inside of that vehicle