



MAX HUDS Guide

HUD Screens in GameGuru MAX

This guide outlines the extent of the first version of HUD support for GameGuru MAX.

Introduction to HUD Screens and User Globals

Apart from the HUD screen (IN-GAME HUD) in Game Guru MAX other HUD screens can be made from scratch for any required use and are discussed on the following pages. When the RPG Hud generation is used, a range of user globals and huds are created automatically for use. This introduction section discusses how to make your own User Globals to be used by the huds and in your game.

To start with go to the main player in-game hud screen. Now lets make a user global for “Thirst” to keep track of our players thirst level in game for an example.

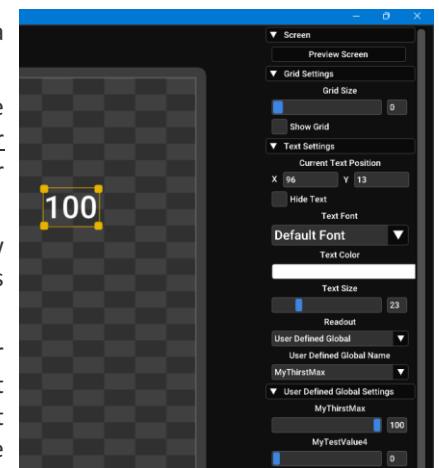
1. Select and press the “User Defined Global” button this will create a Numeric widget on screen ready for use.
2. While that Numeric widget is selected go over to the right hand side panel and enter the name we want for our global variable in the User Defined Global Name field, in this case “MyThirstMax” then press enter this confirms the variable name.
3. A field will be created in the User Defined Global Settings just below where you can put in the maximum value for your global. In this case as it's a maximum value make it 100.
4. Basically we have just made a global variable that we can now use in our game to track and affect thirst and set it to 100. To actually affect that variable, in game behaviors can be used in different ways. So now that we have a User Global to play with, lets go into your level editor and we will set up a global behavior designed for the task of affecting this new variable.
5. When in your level editor select a rock or some object for a global behavior and set it to a dynamic object and Always Active. Attach the *RPG Player State* behavior to it. Now we can change up to 4 different user globals in this behavior but lets just do our “MyThirstMax” for now. Enter that into the User Global Affected1 field.

Set the Amount1 you which it to decrease by it by in this case 1 unit and the Time Interval1 in seconds for every deduction in this example its every 30 seconds. Set the Effect for this Global User Variable wether you wish to *deduct* every interval or *add* every interval. In the case of “Thirst” we want him to get thirstier as his value *deducts*. If it were something like Radiation you would probably ‘*add*’ its value.

The Damage Level is for determining when the UserGlobalAffected falls below this value it will apply a Damage Amount to the player if required. (In the case of an add style effect then when the UserGlobalAffected is above this value it would apply damage.

6. You now have the player starting at 100 points, being monitored and applying 1 point reduction every 30 seconds and when the player reaches 35 will incur a damage amount of 5 every 30 seconds along with the reduction of the “MyThirstMax” global variable. This can be configured to suit whatever style gameplay you wish.

Other behaviors may also give the option to affect User Globals such as *Eat*, *Drink*, *Potions*, *Armor* etc that can be used in gameplay. A non specific one that can affect User Globals is *Global Affected Zone* which allows to affect a User Global while within in a zone. User Globals can be utilised in a myriad of ways to affect gameplay.





HUD Globals

Listed here is a guide to current pre-defined hud globals. This list may change or be added to later. The user can create their own globals to suit their own needs as explained in the previous pages or use any of the pre-defined ones in their huds.

¹Apply to Button Texts with action: Return Button ID to Lua (*Action Button TEXT names are fixed at this time*)

²Apply to User Defined Global Panels

³Apply to User Defined Global Images

Buttons

CRAFT ¹	DROP ¹	BUY ¹
SELL ¹	TAKE ALL ¹	USE ¹
LEAVE ¹	ABANDON ¹	ACCEPT ¹

Crafting

craft:ingredients
craft:title

Inventory

inventory:container²
inventory:craft²
inventory:hotkeys²
inventory:player²
scrollbar:box³
scrollbar:handle³
selected:cost
selected:description
selected:image³
selected:title
selected:value

Map

map:character³
map:image³
map:objective³
map:player³
map>window³
map:winzone³

Trading

MyMoney
MyShopName

Quest

quest:list:1¹
quest:list:2¹
quest:list:3¹
quest:list:4¹
quest:list:5¹
quest:show:completed
quest:show:desc1
quest:show:desc2
quest:show:desc3
quest:show:title

Weapons

Ammo Remaining
Maximum Ammo
Maximum Clipped Ammo
Weapon Reload Quantity

Player

AWARD:MyArmourToughness¹
AWARD:MyDexterity¹
AWARD:MyIntelligence¹
AWARD:MyStrength¹
Maximum Health
MyArmour
MyArmourToughness
MyArmourToughnessMax
MyDexterity
MyDexterityMax
MyHealthInitial
MyIntelligence
MyIntelligenceMax
MyManaInitial
MyManaMax
MyNewPoints
MyPlayerLevel
MyStaminaInitial
MyStaminaMax
MyStrength
MyStrengthMax
MyXP
MyXPMax



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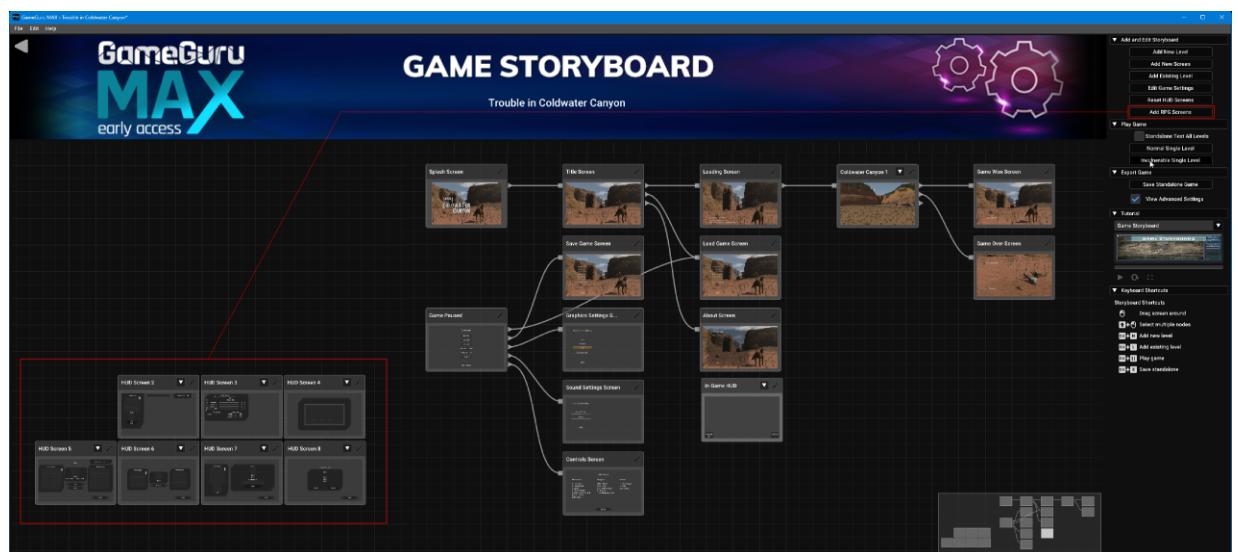
HUD Screens and Hud Templates

HUD Creation

Apart from the first HUD screen (IN-GAME HUD) in Game Guru MAX other HUD screens can be made from scratch for any use required. Alternatively if you press the HUD Template Screens Buttons eg: Add RPG Screens a set of RPG HUD fully functional screens will be generated to be modified to suit your needs, (*at present there is only one button other templates may be implemented for different game genre HUD generation*). This document also shows an example of how to setup a HUD screen from scratch.

How to make HUD Screens in GameGuru MAX using the HUD Template Buttons

HUD Template buttons will generate a set of fully functional HUD screens to suit your genre game and can be modified suit your particular needs. For example: Press the Add RPG Screens button, this will generate a set of fully functional HUD screens to suit any or all RPG features in a game. (*More in depth detail on RPG Huds is on page 3*)



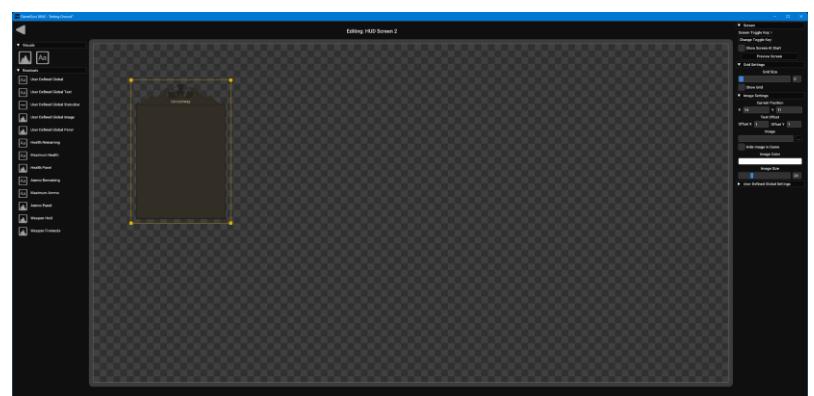
You can modify its look and feel of the generated HUDS with your own images and fonts to suit your game. Any of the controls can be replicated on the Main HUD if required eg: such as the hotkeys bar etc.

How to manually make an HUD Screen in GameGuru MAX

Lets make an **Inventory HUD** as an example. First add a new HUD Screen by pressing the Add New Screen button in the storyboard section. This will create a new screen called **HUD Screen 2** (if you had no others apart from the main in-game hud). To call this HUD up in game you must give it a Screen Toggle Key, you can press the change toggle key then the letter you wish to use as the key to call up this screen in game (for an inventory screen usually the letter I).

Add an image

To begin with lets put an Inventory background image on the screen with the *User Defined Global Image* button on the left hand side. This will put a default image on the screen, go over to the right hand panel and select an image to suit your background. Now size the image area to suit your preference.



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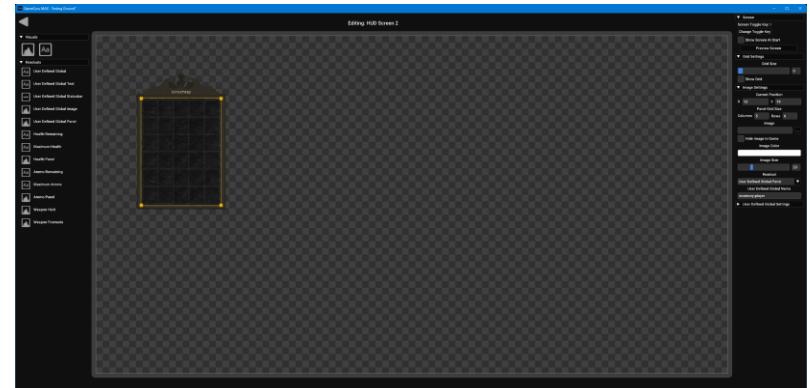
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Add a Panel

Add an inventory panel by using the User Defined Global Panel button. Now go over to right hand panel and set the Panel Grid Size for eg: 5 columns by 6 rows.

If you want an image for this panel select one to suit your needs. For the User Defined Global Name use *inventory:player* in the field.



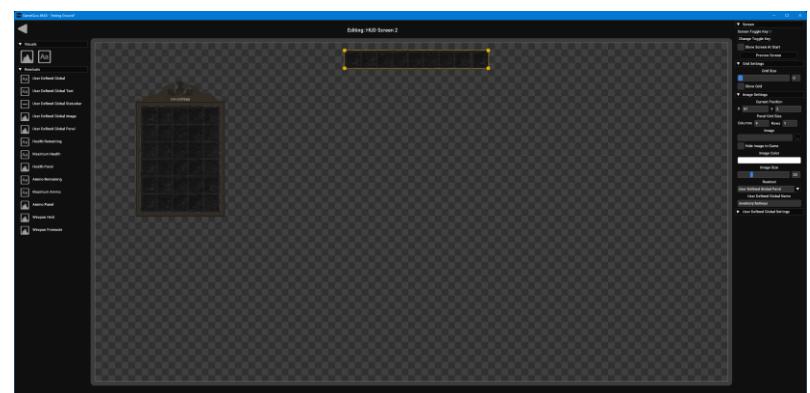
Add a Datafile

A datafile for the inventory is a *Tab Delimited Text File* that can be made in Microsoft excel or Google docs or similar program just ensure to save the format as TAB delimited. Name the empty file ***collection-items.tsv*** and save or put it in the games project folder. This file can be edited outside of GameGuru Max at any time and is also updated via behaviors in the game.

Add a Hot Keys bar

An Inventory Hot Keys Bar allows for quick key access (1-9 to items on the bar within the game. As above if you wish a special background image add it in.

Then add a User Defined Global Panel and set the Panel Grid Size for eg: 9 columns by 1 row. If you want an image for this panel select one to suit your needs. For the User Defined Global Name use *inventory:hotkeys* in the field.



Add a DROP Button

Now add a button using the top left button found under Visuals. For the Button Text type in **DROP**. For the Buttons Actions select *Return Button to Lua*.

Add a USE Button

Now add a button using the top left button found under Visuals. For the Button Text type in **USE**. For the Buttons Actions select *Return Button to Lua*.

Adding a Selected Item Display and Text

Add some text using the User Defined Global Text button found under Readouts. For the User Defined Global Name on the right hand side panel type in *selected:title*.

Add an image using the User Defined Global Image button found under Readouts. For the User Defined Global Name on the right hand side panel type in *selected:image*.



You now should have a working inventory HUD screen that can be called up in-game by pressing your selected toggle key. Picking up items flagged as collectable in the game will be placed into the inventory. Items can be dragged and dropped to and from the quick bar and the inventory as required. You also now have two buttons to either drop or use a selected item and a selected image and text display.

Creating HUD screens to suit your needs follow the same principles



RPG HUD Screen Creation

HUD Template buttons will generate a set of fully functional HUD screens to suit your genre game and can be modified to suit your particular needs. For example: Press the Add RPG Screens button, this will generate a set of fully functional HUD screens to suit any or all RPG features in a game. You can delete any HUDs you don't require. You can modify the look and feel of the generated HUDs with your own images and fonts to suit your game. Any of the controls can be replicated on the Main HUD if required eg: such as the hotkeys bar etc.



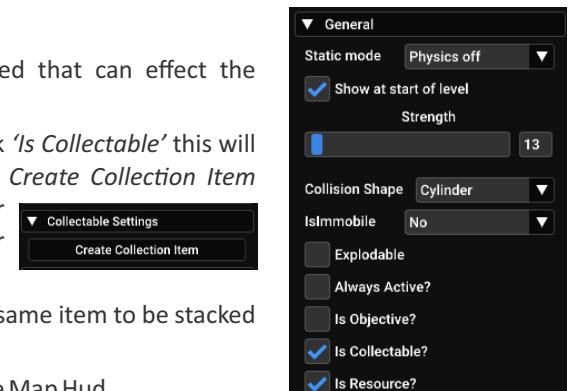
The HUD screens generated are:

- | | |
|--------------|----------------------------|
| HUD Screen 2 | - <i>The Inventory hud</i> |
| HUD Screen 3 | - <i>The Player hud</i> |
| HUD Screen 4 | - <i>The Map hud</i> |
| HUD Screen 5 | - <i>The Trading hud</i> |
| HUD Screen 6 | - <i>The Chest hud</i> |
| HUD Screen 7 | - <i>The Crafting hud</i> |
| HUD Screen 8 | - <i>The Quest hud</i> |

Items/Objects within the game world

Items/objects within a game world can have flags checked that can effect the interaction within various huds.

Selected from the General panel on an object you can check 'Is Collectable' this will open a section called Collection Settings and pressing the Create Collection Item button will allow the item to be used in the *inventory* container by default or if required can start its life in any other designated container.



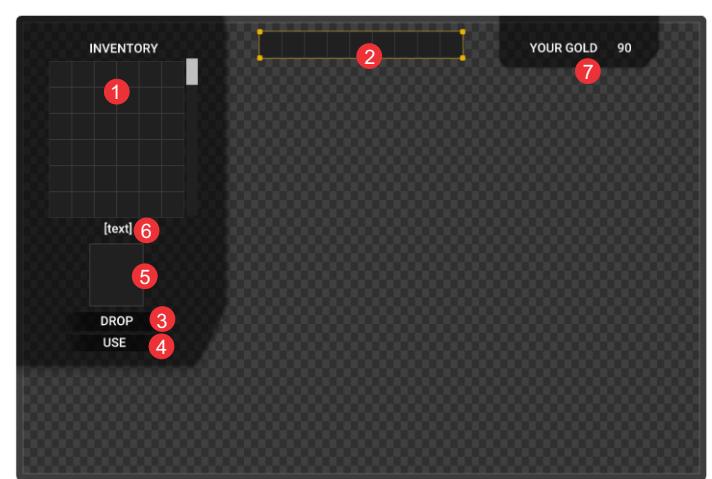
Checking the 'Is Resource' option allows the multiples of the same item to be stacked within the inventory rather than take extra inventory slots.

Another flag 'Is Objective' allows for the item to show up on the Map Hud.

HUD Screen 2 - *The Inventory hud*

Picking up items in a game flagged as collectable will be placed into the inventory (1). Items can be dragged and dropped to and from the quick bar (2) and the inventory as required as well as in the trading and crafting screens.

On the Inventory hud screen you also have two buttons to either drop (3) or use (4) a selected item. A display of the selected item image(5) and text(6) is also shown. Also shown is the amount of currency (7) (in this case *Gold*) you have.

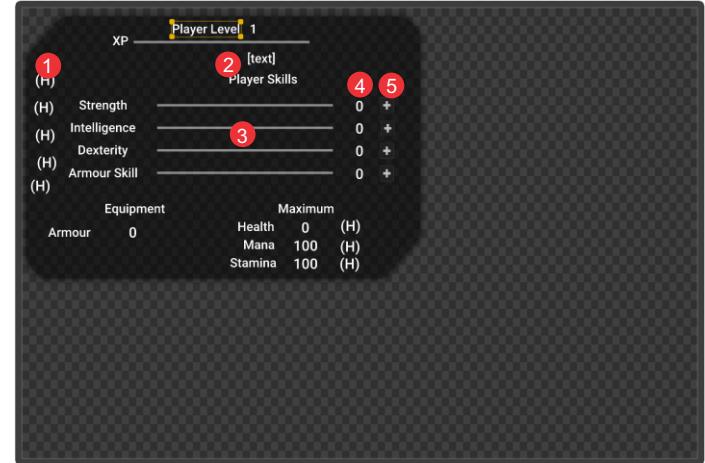




HUD Screen 3 - The Player hud

In the Player Skills Hud most of the displayed fields in here are updated through out your game. Gaining XP (Experience points) apart from increasing your Player Level (1) for doing certain tasks etc. in game will also give you skill points (7) to attribute to your characters various traits (4) using the + buttons (5).

These + buttons are connected to a variable to increase the value. To see the connected variable select the + button and uncheck the Hide Text box. The + button text field will be shown and shows you the connected variable. You can change the text to AWARD:xxx where xxx is the name of your global user-defined value you wish to increment with the + button.

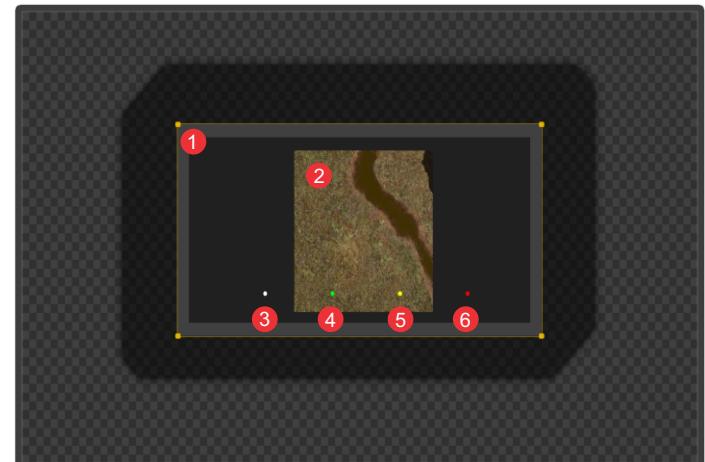


Any variables can be hidden (1) on-screen by selecting the *hide text* check box on the hud gadget panel this marks them with a (H) in the hud editor. Changes to any of the main player skills effect the maximum available of the Health, Mana, Stamina and Armour at present. Armour value change will alter the percentage chance of breaking also.

HUD Screen 4 - The Map hud

This is the map hud screen this contains your game map of your design or image for a in game map or minimap if required as well.

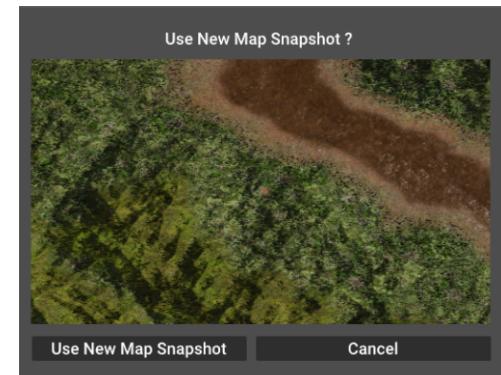
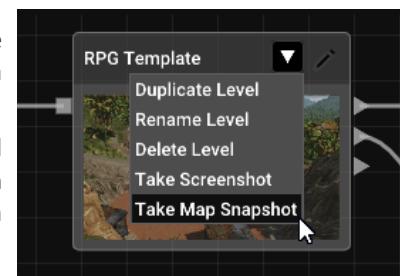
- (1) This is the *map:window* that controls how the map image itself is clipped and where on screen it will be drawn
- (2) The *map:image* is the actual image that represents the level
- (3) Map markers on the map availabe are the *map:player*, *map:objective*, *map:character* and *map:winzone* which show the relative positions of these level objects on the map



Making a Map

To make a map image to use in the Map HUD and for MiniMaps, go to the Storyboard and select the down arrow on the map item required to generate a map image for and select *Take Map Screenshot* from the drop down menu.

You will now be taken to the Map Snapshot Screen showing the orthogonal view of the map area of the terrain. Press the *Take Map Snapshot* button on the right hand side panel and you will be brought back to the Storyboard with a small windows for you to either *Use New Map Snapshot* or *Cancel*.



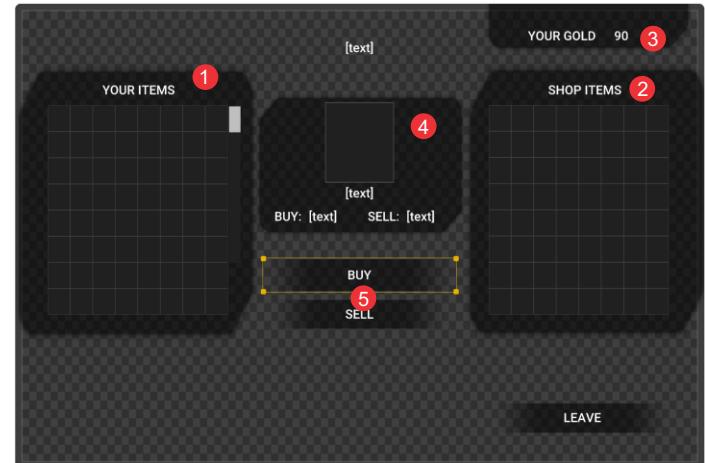
Selecting *Use New Map Snapshot* will automatically save the map in your *mapbank* folder for use with the Map HUD and Minimap. It is automatically linked into the HUD/Minimap system by default. It uses the use the User Defined Global Value *map:image*. This global value will replace the Map Snapshot associated with each map/level of your game project. You can edit the map image which are in *png* format, to your liking to suit your style of game.

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HUD Screen 5 - The Trading hud

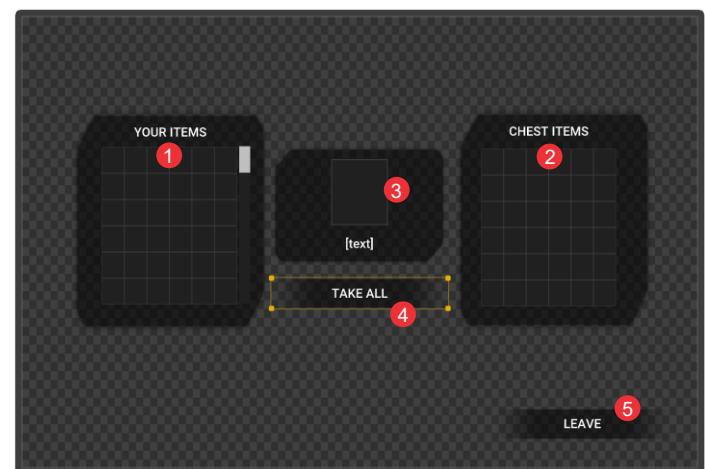
This is the trading hud screen that is shown when players interact with a *trader* character or object. Shop items can be bought from the trader and items within your inventory(1) can be sold to the trader(2) and money exchange (3) is accounted for. *Trader* container names can be *shop*, *shop1*, *shoparmor* etc. You can have separate shop container names for each trader or shared. You could have one called *shoparmor* for an armor trader and if that same container name is used elsewhere on the map through out the game it would have the same shop item listings. Or perhaps you wanted a trader to specialise in food items then a container name of *shopfood* could be used either for the one trader or shared between other food traders elsewhere. Selected item(4) in your inventory or shop is shown in the middle section with the option to buy or sell(5).



HUD Screen 6 - The Chest hud

This chest hud screen shows your inventory (1) items and a chest inventory(2) of items in a particular chest. Selected items show in the middle area (3) with more detail. You can drag and drop items to and from your inventory and the chest inventory or pressing the Take All (4) takes all chest items and places them in the player inventory. Pressing the Leave (5) button exits this hud.

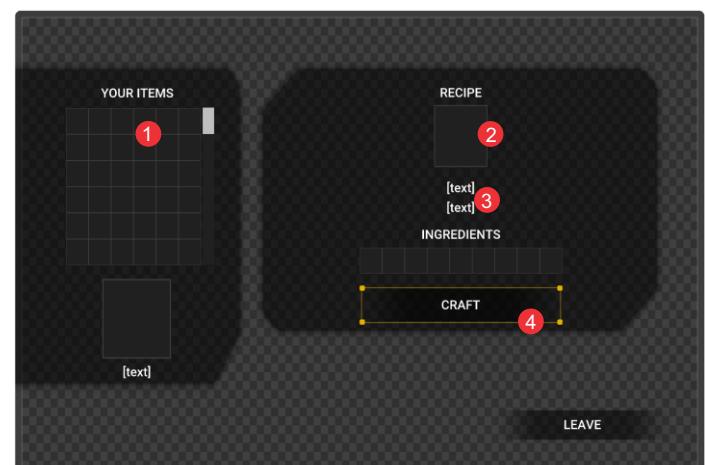
Naming the container *chest1*, *chest2*, *chest player* shows only the items for that particular chest. You could have one called *chestplayer* and have that same chest in safehouses through out the game so players can retrieve and store items they have collected. You can set chest container names for any particular items such as treasure chests, crates, storage racks, whatever you require as a chest container of items to display. If a chest is given *chestunique* (behavior default) as the specified container, a unique chest ID is created automatically for this chest object and will be unique.



HUD Screen 7 - The Crafting hud

This crafting hud is shown when players interact with a crafting table, bench or object designated as a crafting table. It allows for players to craft items from *crafting recipes* collected in the game. *Recipes* contain the details of the item to be crafted and its requirements.

All required items are entered into the collectable screen in the *Item Ingredients* field eg: "Desert Plant 1,Desert Plant 2" with a comma seperating each one. The *recipe* behavior is also attached to that object for pickup. Usually a couple of *resource* items may be needed. An object that is going to be used in crafting an item such as a plant or object is needs to be flagged as *collectable* and *resource* and has the *resource* behavior attached.



To craft an item, placing the *crafting recipe* item in the crafting area (1) from your inventory (1) and it will show the required item resources (3) to craft the item(2). Provided you have the required items for the recipe then pressing the Craft Button (4) the item is created and placed in the inventory for use.

Pressing the Leave Button (5) exits this hud.

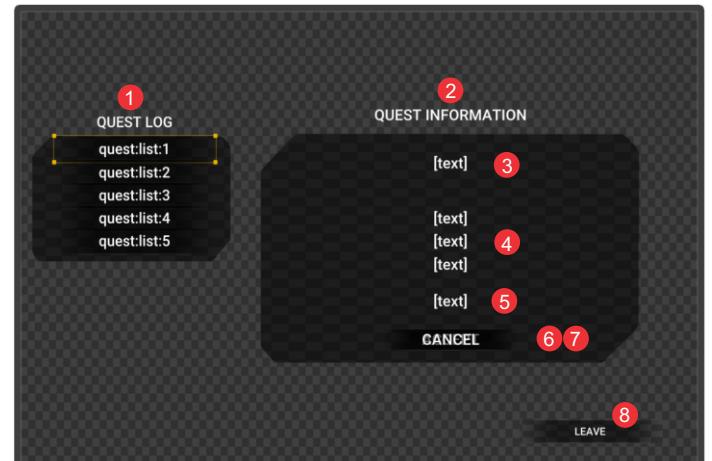


HUD Screen 8 - The Quest hud

The Quest/Mission system is a diverse system allowing quests to be created and then picked up throughout a game. The HUD Screen is broken up into two areas, the quest log (1) which shows the picked up, inactive and currently active quests. The second area is the quest information (2) area. This shows the quest details on a current quest or one viewed to be accepted. If you are already have an active quest and you accept another one it will just add it to your quest log. You can activate or cancel a quest at any time by calling up this hud screen.

The first line in the quest information panel is the *Quest Title* (3) followed by 3 *Quest Description* (4) lines and the last line is the *Quest Rewards* (5) showing the XP and Monetary Value to gain from the successful completion of the quest. The two Buttons ACCEPT and CANCEL reside on top of each other and will only show the appropriate button when quests are to be accepted or existing ones cancelled.

Pressing the *Leave Button* (8) exits this hud.



Quest Overview

The Quest Types

Generally quests/missions fall into three main categories.

Collect Quests

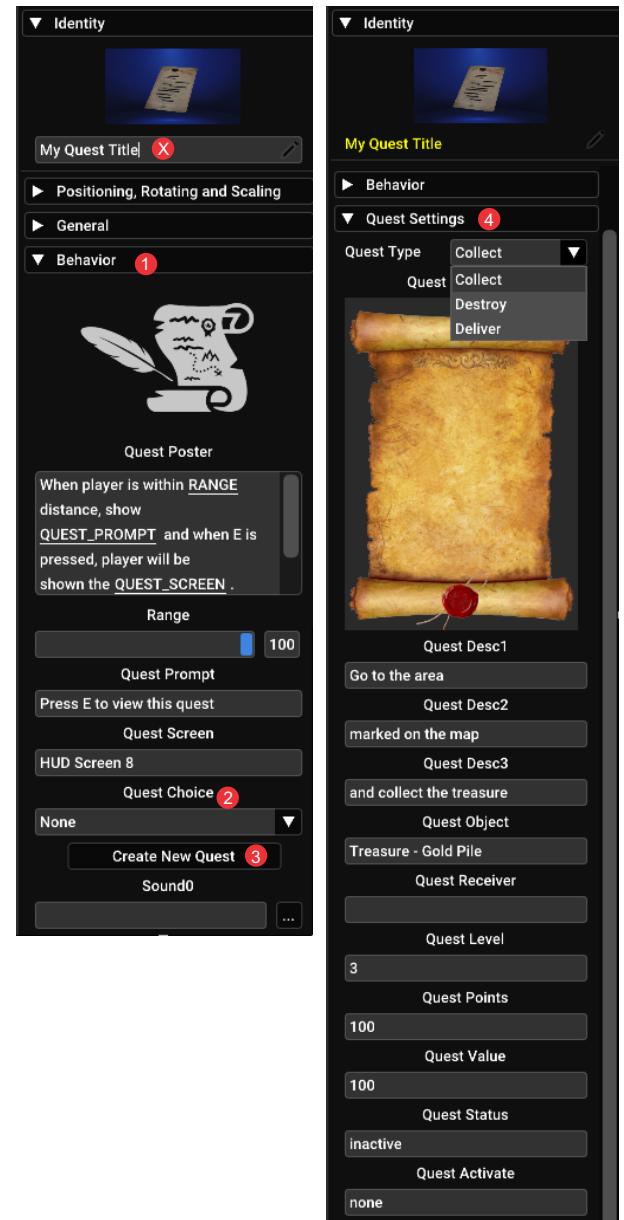
Allows for objects *eg: treasure or a required item to be obtained*. The objective is marked on the map for you if the named object itself is flagged as an objective. There may be multiples that need to be collected to complete the quest.

Destroy Quests

Allows for eliminating or destroying a named object or character to complete the quest

Delivery Quests

Allows for delivering a named object to a named character or place called the *Quest Receiver* to complete the quest. When within proximity of the receiver you will be prompted to complete the delivery by pressing the Q key.



Refer to the The Max Quest Guide for more details concerning creating quests.