

# Documentation

## AnyRPG Introduction

AnyRPG is an [open source](#) Role Playing Game engine written in [C#](#) for [Unity](#) that enables content creators to rapidly create unique and engaging short stories, scenarios, adventures, and even full games.

By providing a platform with the most common Role Playing Game functionality out of the box, AnyRPG allows content creators to focus directly on the things that make their game unique such as visual assets and story content.

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## Getting Started

### Guides: Jump right in

Follow our handy guides to get started on the basics as quickly as possible:



Installing AnyRPG



Creating your first game



Configuring your game



Adding Content To Your Game

## Getting Started

### Installing AnyRPG

AnyRPG is available as a standalone Unity package, or via github as a complete Unity Project. Both installation methods provide the same functionality; however, the Unity package includes approximately twice as many icons, audio files, and 3d models.

## Choose an installation type



Unity Package Installation

## Unity Package Installation

### Download AnyRPG

Download the AnyRPG Unity package from <https://www.anyrpg.org/downloads/>.

## Install the Correct Unity Version

The AnyRPG Unity package is exported as a complete project because it requires specific build settings, compiler settings, layers, and tags to function. Due to the way full projects are exported in Unity, they must be imported with the **same** Unity version they were exported with.

You can find the correct Unity version for the latest unity package right on the downloads page, and the correct Unity version for previous AnyRPG packages on their individual details pages.

#### Unity Package

Downloadable versions of the AnyRPG Engine in Unity Package format. This package includes the full content of A Lost Soul with all third party assets replaced with re-distributable assets.

#### AnyRPG Engine 0.13a

The latest version of the AnyRPG engine (0.14a) is compatible with Unity 2020.3.33f1 which can be downloaded from <https://unity3d.com/get-unity/download/archive>.

[DOWNLOAD](#)

[free\_download\_btn]

#### Primary Download Link (MEGA – fast)

| Display | 20                                     | downloads per page                       | Search:                  |
|---------|--|--|--------------------------|
| Title   | Details                                | Published                                | Download                 |
|         | AnyRPG Engine 0.14a<br>② 16 downloads  | AnyRPG Engine 0.14a<br>April 29, 2022    | <a href="#">DOWNLOAD</a> |
|         | AnyRPG Engine 0.13a<br>② 267 downloads | AnyRPG Engine 0.13a<br>December 24, 2021 | <a href="#">DOWNLOAD</a> |

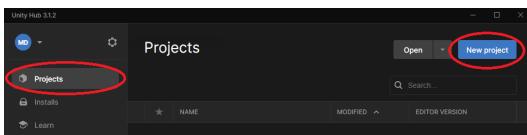
Description [Package Info](#)

#### Unity Compatibility

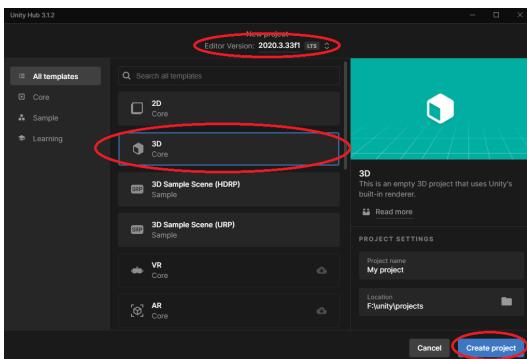
This package is compatible with Unity 2020.3.25f1 which can be downloaded from <https://unity3d.com/get-unity/download/archive>.

## Create a New Unity 3D Project

Open Unity Hub and select the *Projects* tab. Click *New project*.

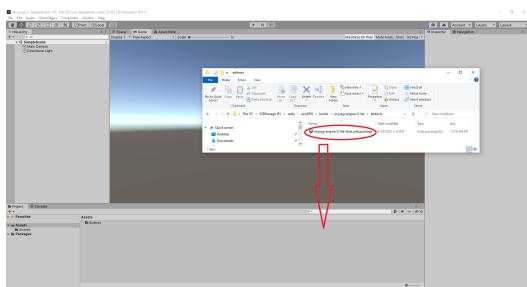


If you have multiple versions of Unity installed, you will need to select the correct editor version. Choose 3D (URP/HDRP are not available yet), optionally name your project, and click the *Create project* button.

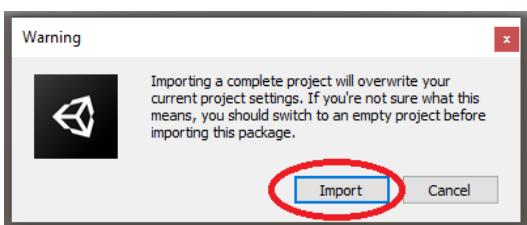


## Install the AnyRPG Unity Package

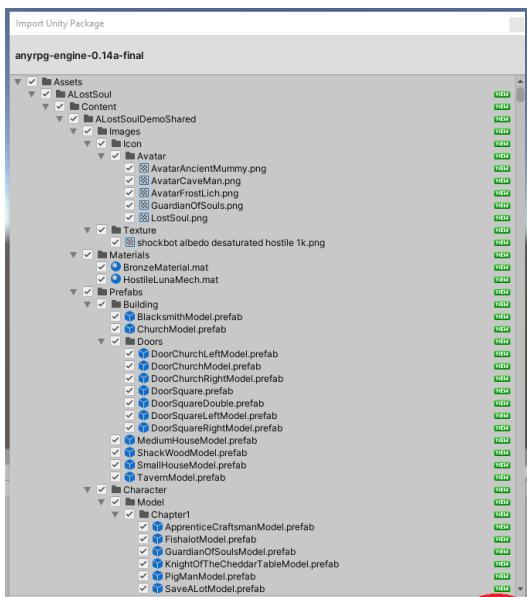
When project loads, find the AnyRPG Unity package on your hard drive, and drag it into the Project pane or tab in the Unity editor.



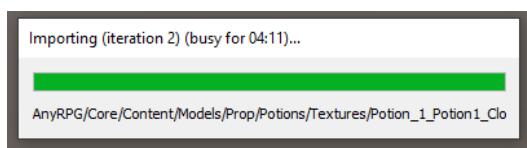
A warning window will pop up letting you know this package will overwrite all project settings. Click *Import*.



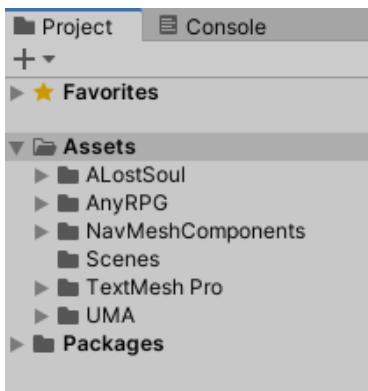
When the Import Unity Package window appears, click *Import*.



The AnyRPG Unity package contains thousands of textures, icons, 3d models, and audio files. You can expect the import to take around 10 minutes, even on a reasonably fast computer.



When the installation completes, your project should have the following folder structure.



You can safely ignore any warning messages in the console. There should be no error messages. If there are error messages, check to ensure you created the project with the correct version of Unity.



## Next Steps

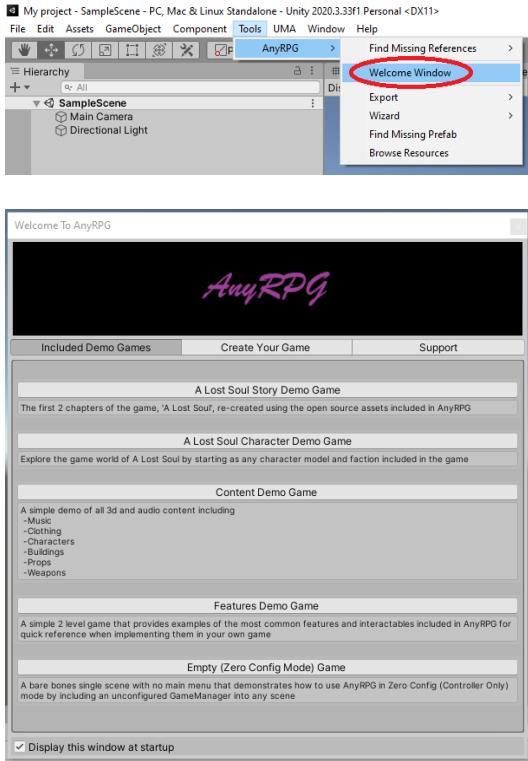
From here you can explore the [included sample games](#) or get started [creating your own game](#).

## Included sample games

AnyRPG includes several sample games. Read on to find out how to play them.

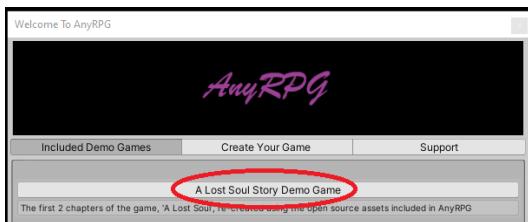
## Welcome Window

You can find links to the included sample games in the welcome window. The window will pop up automatically when you open the Unity project, but if you have just installed the package and not closed the Unity editor yet, you can still open it manually by clicking on the *Tools* menu in the menu bar and choosing *AnyRPG > Welcome Window*.

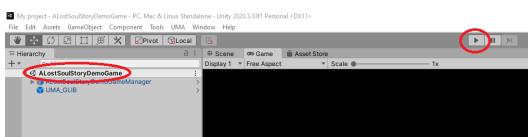


## Loading the Games

To load any of the sample games from the Welcome Window, click on the button with the game title.



This will open the loading scene for that game, at which point you can press the play button in the Unity editor to play the game.



A brief description of the purpose of each game is listed below.

## A Lost Soul Story Demo Game

A Lost Soul Story Demo is the first 2 chapters of the game A Lost Soul re-created using the open source assets included in the AnyRPG Engine.

- ⓘ A Lost Soul Story Demo Game is only included with the AnyRPG Unity package. If you installed AnyRPG using github, this option will be missing from the Welcome Window.

## A Lost Soul Character Demo Game

A Lost Soul Character Demo allows you to explore the world of A Lost Soul by playing as any character and faction you encounter during the more linear story game.

- ⓘ A Lost Soul Character Demo Game is only included with the AnyRPG Unity package. If you installed AnyRPG using github, this option will be missing from the Welcome Window.

## Content Demo Game

The Content Demo allows you to view all included textures, 3D models, and audio content in the AnyRPG Unity package. You can play as any of the included character models. It contains a single playable scene with all 3D models organized by type, all textures, and audio players that allow playing any ambient sound, background music, or sound effects.

- ⓘ The Content Demo Game is only included with the AnyRPG Unity package. If you installed AnyRPG using github, the option will be missing from the Welcome Window

## Features Demo Game

The Features Demo Game is intended to be a simple demonstration of all features supported by AnyRPG. Since the majority of the content in the features demo game was installed using the Template Content Wizard, it also somewhat serves as an example of what type of template content can be quickly installed in your own games using the wizard.

## Empty (Zero Config Mode) Game

All of the above games use AnyRPG in configured game mode, meaning they contain a separate loading scene, main menu, and content scenes. They also contain their own resources folders and Game Manager configurations.

The Empty Game is a demonstration of how AnyRPG can be used as a character controller to allow you to explore a scene using the default player model by simply adding and unconfigured GameManager prefab to

## Creating your first game

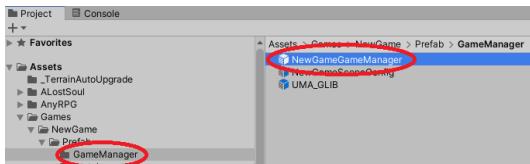
You are now ready to create your first game. Open the [New Game Wizard](#) to get started.

## Configuring your game

### The System Configuration Manager

All configuration options that apply to the entire game are set through the System Configuration Manager.

After using the New Game Wizard to create your game, you can find the System Configuration Manager in the Game Manager prefab at the following directory path : *Games/YourGameName/Prefab/GameManager*.



## Settings

The System Configuration Manager has over 100 settings. They are grouped in common related themes, and listed below.

### Game Configuration

| Name                   | Description   |
|------------------------|---|
| Game Name              | The name of the game that will show on the main menu screen when the game is first launched.  |
| Game Version           | The version number that will show on the main menu screen when the game is first launched.  |
| Load Resources Folders | Because AnyRPG supports multiple games in the same project, it is necessary to only load the Scriptable Objects that apply to the correct game. Each game has its own resources in subfolder of a Resources folder in the format <i>Resources/YourGameName</i> . This has the added benefit of allowing the developer to have shared resources that can be re |

used across multiple games.

This list contains the names of all Resources subfolders that should be loaded into memory when the game is launched.

## Scenes

| Name                  | Description  |
|-----------------------|--|
| Initialization Scene  | <p>The name of the scene that contains the GameManager prefab. In the launching process, the GameManager prefab is set to <code>DontDestroyOnLoad</code> and then the <i>Main Menu Scene</i> is loaded.</p> <p>If the game is launched from a content scene that has a <a href="#">Scene Config</a> prefab in it, that scene will be unloaded, and the <i>Initialization Scene</i> will be immediately loaded to start the launching process properly.</p> |
| Main Menu Scene       | <p>The name of the scene that contains the main menu, where the player can start new games or load existing saved games.</p> <p>This name can be the name of the scene on disk, the friendly name configured in a <a href="#">Scene Node</a>.</p>  |
| Default Starting Zone | <p>If your game is not configured to allow choosing a Faction when starting a game, or the the Faction's Default Starting Zone field is empty, then new players will start their adventures in this scene.</p> <p>This name can be the name of the scene on disk, the friendly name configured in a <a href="#">Scene Node</a>.</p>  |

## New Game Options

| Name                | Description   |
|---------------------|---|
| Default Player Name | <p>If <i>Use New Game Window</i> is false, the player will start a new game with this name.</p> <p>If <i>Use New Game Window</i> is true, the player will have its name set to this by default.</p> |
| Use New Game Window | <p>If true, the player will be presented with a screen to customize the character name before launching a new game.</p>   |
| New Game Appearance | <p>If true, and <i>Use New Game Window</i> is true, show the appearance tab in the New Game Window.</p>   |

|                                  |  |
|----------------------------------|--|
| New Game UMA Appearance          | If true, and <i>Use New Game Window</i> is true, an UMA character creator will be shown when UMA characters are selected in the New Game Window.                           |
| New Game Class                   | If true, and <i>Use New Game Window</i> is true, the player can select their <a href="#">Character Class</a> in the New Game Window.                                       |
| New Game Faction                 | If true, and <i>Use New Game Window</i> is true, the player can select their <a href="#">Faction</a> in the New Game Window.   |
| New Game Specialization          | If true, and <i>Use New Game Window</i> is true, and <i>New Game Class</i> is true, the player can select the <a href="#">Class Specialization</a> in the New Game Window. |
| New Game Audio                   | An <a href="#">Audio Profile</a> that contains an audio clip to play while the New Game Window is open.  |
| Default Player Unit Profile Name | If <i>Use New Game Window</i> is false, all new players will start the game using this <a href="#">Unit Profile</a> .  |
| Always Show Default Profiles     | If true, and <i>Use New Game Window</i> is true, the default profiles will always be shown, in addition to any allowed by <a href="#">Faction</a> (if used).               |
| Character Creator Profile Names  | A list of <a href="#">Unit Profiles</a> to show in the New Game Window.  |

## In Game Character Creator

| Name                      | Description   |
|---------------------------|---|
| Use First Creator Profile | If true, when the character creator is used in-game the character will be forced to use the first character creator profile, rather than their current model. |

## Inventory

| Name                    | Description   |
|-------------------------|---|
| Default Inventory Slots | The number of slots the player inventory contains, without any <a href="#">Bags</a> equipped.     |
| Default Bank Slots      | The number of slots the <a href="#">Bank</a> contains, without any <a href="#">Bags</a> equipped. |

|                       |   |
|-----------------------|---|
| Max Inventory Bags    | The maximum number of bags a player can have equipped on their character.   |
| Max Bank Bags         | The maximum number of bags a player can have equipped at the <a href="#">Bank</a> .                               |
| Default Backpack Item | If this field is not null, the player will have this item equipped as their backpack when starting a new game.    |
| Default Bank Contents | A list of <a href="#">Items</a> that the player will have in their <a href="#">Bank</a> when starting a new game. |

## Controller

| Name                             | Description   |
|----------------------------------|---|
| Default Controller Configuration | <p>The controller configuration that will be enabled by default the first time the game is launched. This can be changed by the player in the in-game options menu.</p> <p><b>Mouse And Keyboard</b></p> <p>Mouse and Keyboard control will be enabled and the player will use strafe mode as the movement default. Mouse and Keyboard action bars will be shown.</p> <p><b>Game Pad</b></p> <p>Game Pad control will be enabled and the player will use free run mode as the movement default. Game Pad action bars will be shown.</p> |
| Max Turn Speed                   | The maximum turn speed in degrees per second.   |
| Walk Speed                       | The default character walk speed in meters per second.  |
| Run Speed                        | The default character run speed in meters per second.   |
| Swim Speed                       | The default character swim speed in meters per second.  |
| Fly Speed                        | The default character fly speed in meters per second.   |
| Glide Speed                      | The default character glide speed in meters per second.   |
| Glide Fall Speed                 | The speed the character will fall while gliding in meters per second.   |

|                                     |  |
|-------------------------------------|--|
| Use Fall Damage                     | If true, the player will take damage when falling from heights.  |
| Fall Damage Per Meter               | If fall damage is used, the amount of damage per meter fallen the player will take.  |
| Fall Damage Min Distance            | If fall damage is used, the minimum distance the player must fall before damage is taken.  |
| Fall Damage Audio Clip              | The audio clip to play when fall damage is taken.  |
| Fall Damage Audio                   | The <a href="#">Audio Profile</a> to play when fall damage is taken. If this value is set, it will override the <i>Fall Damage Audio Clip</i> setting.   |
| Use Third Party Movement Controller | THIS FEATURE IS DEPRECATED. DO NOT USE.  |
| Allow Auto Attack                   | If true, the player will automatically attack with the current auto-attack even when no abilities are actively used. If a third party movement controller used, disable this to prevent movement lock in combat. |

## Camera

| Name                           | Description                             |
|--------------------------------|---|
| Use Third Party Camera Control | THIS FEATURE IS DEPRECATED. DO NOT USE. |
| Third Party Camera             | THIS FEATURE IS DEPRECATED. DO NOT USE. |
| System Animation Profile Name  |   |

## Animation

| Name                          | Description   |
|-------------------------------|---|
| System Animation Profile Name | This <a href="#">Animation Profile</a> should contain references to all the default animations that are on the default animation controller so the system knows which animations to replace when overriding them. |
| Sync Movement Animation Speed | If true, movement animations will be sped up or slowed down to match the actual speed (in m/s) the character is moving at. This will reduce foot sliding but may result in more jerky looking movement.           |

## Character Animation Configuration

| Name                           | Description  |
|--------------------------------|--|
| Default Animation Profile Name | This <a href="#">Animation Profile</a> will override the system animations included in the engine when no other unit or weapon specific animations are in use. |
| Default Animation Controller   | The animation controller that will be used to animate characters by default.   |

## Level Values

| Name                  | Description  |
|-----------------------|--|
| Max Level             | The character cannot level up past this level.   |
| XP Required Per Level | Every level, the amount of experience you need for the next level is increased by this amount. |

## Currency

| Name                    | Description  |
|-------------------------|--|
| Currency Group Name     | A <a href="#">Currency Group</a> that will be shown by default in tooltips and the Vendor UI window.   |
| Vendor Price Multiplier | When selling an <a href="#">Item</a> to a <a href="#">Vendor</a> , the offered amount will be the regular purchase amount multiplied by this number. |

## Currency Scaling

| Name                           | Description  |
|--------------------------------|--|
| Kill Currency Name             | If <i>Automatic Currency</i> is enabled for a <a href="#">Lootable Character</a> , this <a href="#">Currency</a> will be dropped.                                  |
| Kill Currency Amount Per Level | If <i>Automatic Currency</i> is enabled for a <a href="#">Lootable Character</a> , this <a href="#">Currency</a> amount will be multiplied by the character level. |
| Quest Currency Name            | If <i>Automatic Currency</i> is enabled for a <a href="#">Quest</a> , this <a href="#">Currency</a> will be rewarded.  |

|                                 |  |
|---------------------------------|--|
| Quest Currency Amount Per Level | If <i>Automatic Currency</i> is enabled for a <a href="#">Quest</a> , this <a href="#">Currency</a> amount will be multiplied by the <a href="#">Quest</a> level |
|---------------------------------|--|

## Quest Experience Scaling

| Name                                      | Description   |
|---|---|
| Base Quest XP                             | A flat experience amount to add to all quests that does not scale with level.   |
| Quest XP Per Level                        | A flat experience amount to add to all quests that does scale with level.   |
| Use Quest XP Level Multiplier Denominator | If true, the experience per level will be multiplied by <code>(1 / level)</code> .  |
| Quest XP Multiplier Level Cap             | If the above option is true, and this value is more than 0, the experience per level will be multiplied by <code>(1 / level)</code> . |

## Kills

| Name                                     | Description   |
|--|---|
| Base Kill XP                             | A flat experience amount to add to all kills that does not scale with level.  |
| Kill XP Per Level                        | A flat experience amount to add to all kills that does scale with level.  |
| Use Kill XP Level Multiplier Denominator | If true, the experience per level will be multiplied by <code>(1 / level)</code> .  |
| Kill XP Multiplier Level Cap             | If the above option is true, and this value is more than 0, the experience per level will be multiplied by <code>(1 / level)</code> . |
| Default Despawn Timer                    | The default amount of time before a unit despawn after killed and looted.   |

## DPS Scaling

| Name                        | Description  |
|-----------------------------|--|
| Weapon DPS Budget Per Level | <a href="#">Weapons</a> with <i>Dynamic Level</i> set to true will get this amount of DPS per level. |

## Primary Stats and Scaling

| Name                  | Description  |
|-----------------------|--|
| Stat Budget Per Level | A Per level stat budget that will be applied to all <a href="#">Character Stats</a> , in addition to their individual budgets. |

## Power Resource and Capabilities

| Name            | Description  |
|-----------------|--|
| Power Resources | A list of <a href="#">Power Resources</a> that all characters will have. |
| Capabilities    | A list of <a href="#">Capabilities</a> that all characters will have.    |

## Layer

| Name                         | Description  |
|------------------------------|--|
| Default Character Unit Layer | Character units will automatically be set to this layer so they can respond to AOE / looting and other things that filter by this layer. |
| Default Player Unit Layer    | Player units will automatically be set to this layer.  |

## System Abilities

| Name                     | Description   |
|--------------------------|---|
| Level Up Effect Name     | The <a href="#">Ability Effect</a> to cast on a player when they level up.                          |
| Death Effect Name        | The <a href="#">Ability Effect</a> to cast on a player when they die.                               |
| Loot Sparkle Effect Name | The <a href="#">Ability Effect</a> to cast on any character when it has loot that can be collected. |

## System Audio

| Name | Description |
|------|-------------|
|      |             |

|                        |  |
|------------------------|--|
| Vendor Audio Clip      | This audio clip will play whenever buying from or selling to a <a href="#">Vendor</a> .<br>This <a href="#">Audio Profile</a> will play whenever buying from or selling to a <a href="#">Vendor</a> . If this value is set, it will override the <i>Vendor Audio Clip</i> setting above. |
| Max Chat Text Distance | The maximum distance at which chat in dialogs above characters will also appear in the player ch log. Prevents distant conversations from spamming logs.   |

## Mini Map

| Name                          | Description  |
|-------------------------------|--|
| Auto Pixels Per Meter         | When a minimap texture for a scene cannot be found, how many pixels per meter should be used when taking an automatic snapshot. A higher number results in better image quality, but also higher memory usage. |
| Player Mini Map Icon          | The icon to show on the mini map to represent the player.  |
| Player Mini Map Icon Rotation | If the icon does not face up on the screen, enter the number of clockwise degrees the image is naturally rotated. This will be subtracted from the player angle at run-time.                                   |

## Unit Frames

| Name                        | Description                                      |
|-----------------------------|--|
| Real Time Unit Frame Camera | Using a real time camera will reduce performance |

## UI

| Name                       | Description  |
|----------------------------|--|
| Default Cast Target Circle | The material that will be used to display the cast target on the ground when casting ground targeted spells.                                     |
|                            | A map of <a href="#">Faction</a> relationship colors to materials to use when displaying a highlight circle when a target character is selected. |

|                            |  |
|----------------------------|--|
| Highlight Circle Color Map | <p><b>Source Color</b></p> <p>The <a href="#">Faction</a> relationship color.</p> <p><b>Projector Material</b></p> <p>The material to use for the highlight circle when the character relationship has the Source Color.</p> <p><b>Tint Material</b></p> <p>If true, the <i>Projector Material</i> will be tinted with the source color.</p> |
| Default UI Color           | Default UI color for static elements that have no additional transparency applied to them.   |
| Default UI Fill Color      | Default UI color for background of UI sliders.   |
| Highlight Outline Color    | Default UI color for outline image, when the mouse is hovering over an image.  |
| Highlight Image Color      | Default UI color for background highlight image, when a UI element has been clicked on and is the active image from a group of images.   |
| Highlight Button Color     | Default UI color for the button image on highlight buttons.  |
| Button Normal Color        | The normal color for button UI elements.   |
| Button Highlighted Color   | The highlight color for button UI elements.  |
| Button Pressed Color       | The pressed color for button UI elements.  |
| Button Selected Color      | The selected color for button UI elements.   |
| Button Disabled Color      | The disabled color for button UI elements.   |
| Default UI Panel Frame     | The image to use for the frame of UI panel elements.   |
| Default Faction Icon       | The faction icon to show on the load game screen when the player has no faction.   |

## System Bar

| Name                    | Description   |
|-------------------------|---|
| System Bar Main Menu    | The main menu icon to show on the UI system bar.    |
| System Bar Ability Book | The ability book icon to show on the UI system bar. |
| System Bar Character    | The character icon to show on the UI system bar.    |
| System Bar Quest Log    | The quest log icon to show on the UI system bar.    |

|                         |   |
|-------------------------|---|
| System Bar Map          | The map icon to show on the UI system bar.          |
| System Bar Skills       | The skills icon to show on the UI system bar.       |
| System Bar Reputations  | The reputations icon to show on the UI system bar.  |
| System Bar Currencies   | The currencies icon to show on the UI system bar.   |
| System Bar Achievements | The achievements icon to show on the UI system bar. |
| System Bar Inventory    | The inventory icon to show on the UI system bar.    |

## Interactable Configuration

| Name                                  | Description   |
|---------------------------------------|---|
| Temporary Material                    | The material to use when causing an <a href="#">Interactable</a> to glow on mouseover.                  |
| Multiple Interaction Name Plate Image | An image to use on a nameplate if there is more than 1 valid interactable option.                       |
| Multiple Craft Name Plate Image       | An image to use on a nameplate if only crafting is available, but more than 1 craft skill can be shown. |
| Bank Interaction Panel Image          | An image to use beside a bank option in the interaction UI window.                                      |
| Bank Name Plate Image                 | An image to for a bank option on a nameplate.   |
| Quest Giver Interaction Panel Image   | An image to use beside a quest giver option in the interaction UI window.                               |
| Quest Giver Name Plate Image          | An image to for a quest giver option on a nameplate.  |
| Dialog Interaction Panel Image        | An image to use beside a dialog option in the interaction UI window.                                    |
| Dialog Name Plate Image               | An image to for a dialog option on a nameplate.   |
| Name Change Interaction Panel Image   | An image to use beside a name change option in the interaction UI window.                               |
| Name Change Name Plate Image          | An image to for a name change option on a nameplate.  |
| Cut Scene Interaction Panel Image     | An image to use beside a cutscene option in the interaction UI window.                                  |
| Cut Scene Name Plate Image            | An image to for a cutscene option on a nameplate  |

|   |   |
|---|---|
| Lootable Character Interaction Panel Image    | An image to use beside a lootable character option in the interaction UI window.    |
| Lootable Character Name Plate Image           | An image to for a lootable character option on a nameplate.                         |
| Character Creator Interaction Panel Image     | An image to use beside a character creator option in the interaction UI window.     |
| Character Creator Name Plate Image            | An image to for a character creator option on a nameplate.                          |
| Unit Spawn Controller Interaction Panel Image | An image to use beside a unit spawn controller option in the interaction UI window. |
| Unit Spawn Controller Name Plate Image        | An image to for a unit spawn controller option on a nameplate.                      |
| Faction Change Interaction Panel Image        | An image to use beside a faction change option in the interaction UI window.        |
| Faction Change Name Plate Image               | An image to for a faction change option on a nameplate.                             |
| Class Change Interaction Panel Image          | An image to use beside a class change option in the interaction UI window.          |
| Class Change Name Plate Image                 | An image to for a class change option on a nameplate.                               |
| Vendor Interaction Panel Image                | An image to use beside a vendor option in the interaction UI window.                |
| Vendor Name Plate Image                       | An image to for a vendor option on a nameplate.                                     |
| Portal Interaction Panel Image                | An image to use beside a portal option in the interaction UI window.                |
| Portal Name Plate Image                       | An image to for a portal option on a nameplate.                                     |
| Skill Trainer Interaction Panel Image         | An image to use beside a skill trainer option in the interaction UI window.         |
| Skill Trainer Name Plate Image                | An image to for a skill trainer option on a nameplate.                              |
| Music Player Interaction Panel Image          | An image to use beside a music player option in the interaction UI window.          |
| Music Player Name Plate Image                 | An image to for a music player option on a nameplate.                               |

## Quest Configuration

| Name           | Description                                    |
|----------------|--|
| Quest Log Size | The maximum number of quests in the quest log. |

## Adding Content To Your Game

There are multiple types of content you can add to your game, and multiple ways to add that content. This page provides a high level overview to get you started.

### Static 3D Models and Terrain

The process of adding static 3d models or terrain to a game built with AnyRPG is the same as adding them to any other game. Just open a scene and use the Unity editor like normal.

---

### Wizards

AnyRPG includes multiple [Wizards](#) that allow you, from a single screen, to automate the addition of certain types of content that would otherwise take many steps and involve the configuration of many objects.

See [Wizards Introduction](#) for more information.

---

### Intangible Content (Scriptable Objects)

Intangible Content is any content that generally cannot be seen or touched directly, such as dialogs, quests, factions, and all the other unique elements that make up the actual story of your game. It also includes metadata for objects you will interact with, such as information about what type of music should play when a certain scene is loaded.

AnyRPG uses Unity Scriptable Objects to store this type of content and loads it into an in-memory database when a game is launched.

See [Scriptable Objects Introduction](#) for more information.

---

### Monobehaviours

AnyRPG includes several types of Unity Monobehaviours that are added to GameObjects that permanently exist in scenes, or will be spawned into scenes at runtime.

These Monobehaviours control many things, including, but not limited to:

- How a player can interact with the environment.
- How the environment will change over time as the player progresses through the story.
- How certain objects should be positioned or move around the environment in response to character or player actions.

See [Monobehaviours Introduction](#) for more information.

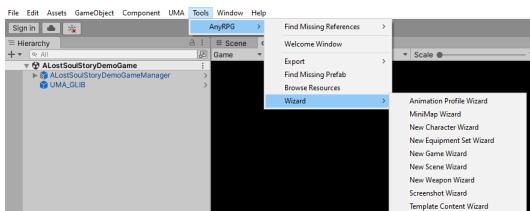
# Wizards

## Wizards Introduction

AnyRPG includes several wizards to help you quickly accomplish the important tasks when setting up a new game or adding content to an existing game.

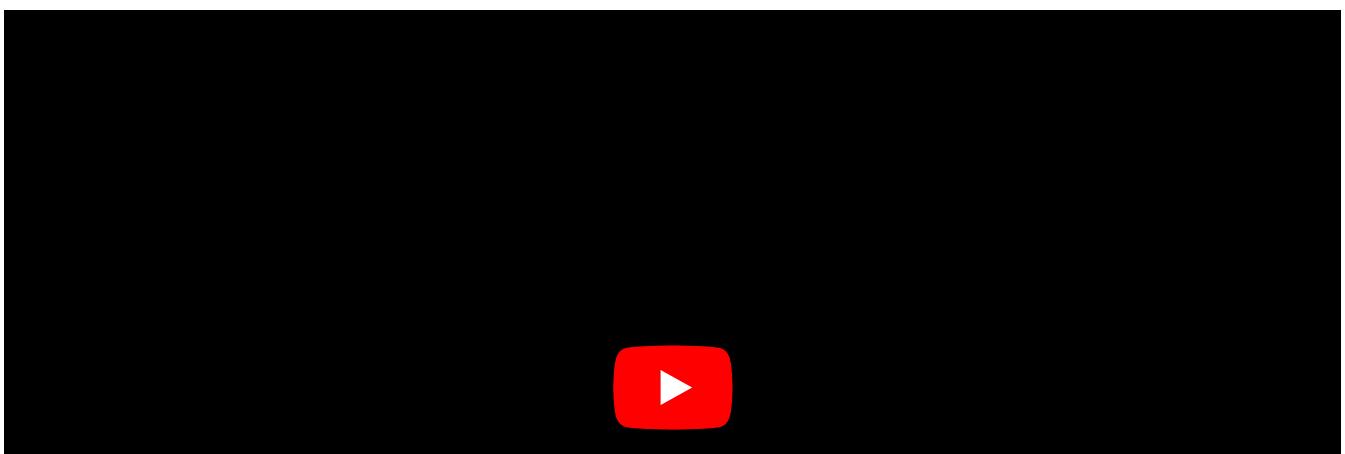
## Usage

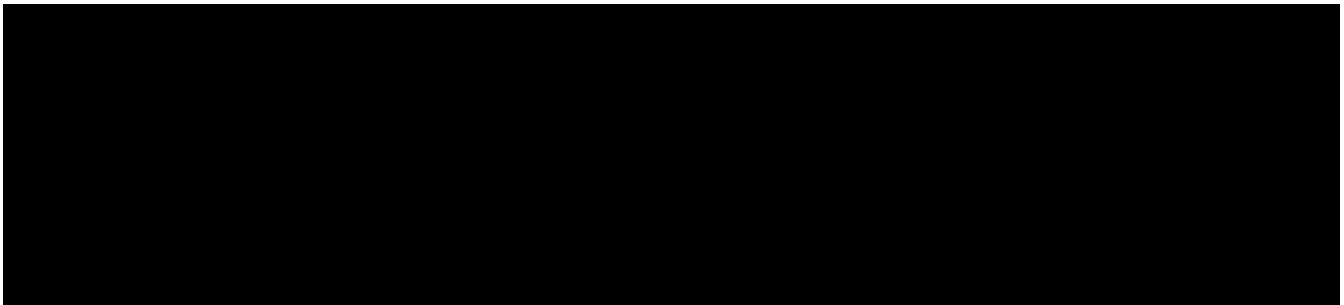
All Wizards can be found under the *Tools > AnyRPG > Wizard* menu.



## New Game Wizard

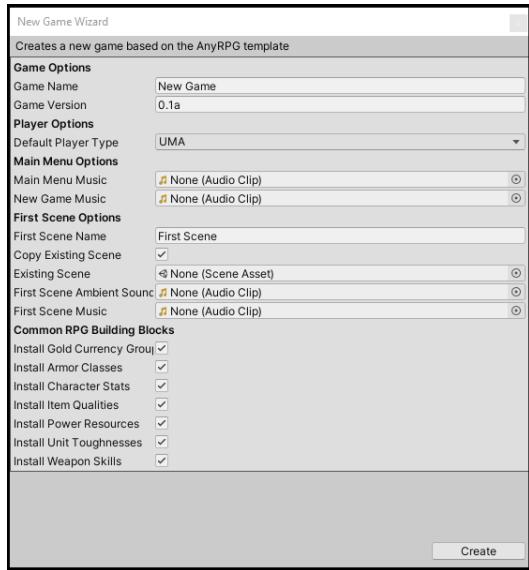
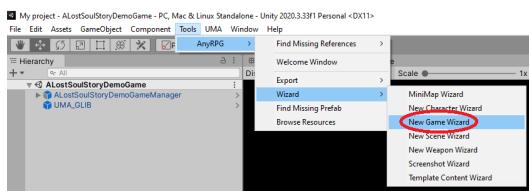
The New Game Wizard will add a new game to your project and fully configure all the minimally required directories, scriptable objects, prefabs and scenes so it is ready to play immediately.





## Accessing The Wizard

The New Game Wizard can be opened by clicking *Tools* in the menu bar, and selecting *AnyRPG > Wizard > New Game Wizard*.



## Options

| Name         | Description  |
|--------------|--|
| Game Name    | The name of the game. This will show on the main menu screen.                      |
| Game Version | A text string describing the game version. This will show on the main menu screen. |
| Player Type  | The type of character that will be available by                                    |

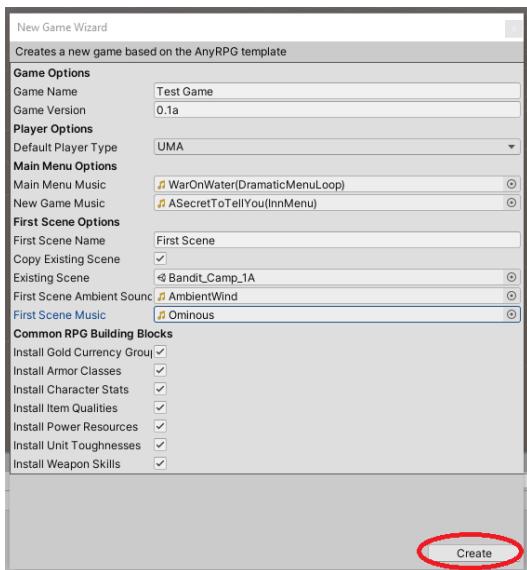
|                             |   |
|-----------------------------|---|
| Default Player Type         | default on the new game screen.<br>UMA : A Unity Multipurpose Avatar with customizable appearance.<br>Mecanim : A standard mecanim character with no customization options.   |
| Main Menu Music             | An audio clip to play when the main menu scene open.  |
| New Game Music              | An audio clip to play when the new game window is open on the main menu.  |
| First Scene Name            | The file name of the default scene that will load when a new game is started. This will also show as the title for the minimap when that scene is open.   |
| Copy Existing Scene         | If this option is not chosen, the first scene will be based on a blank template with only a large flat plane for the player to move around on. If this option is chosen, you can select an existing scene in the project to copy that will be used instead of the blank template scene. |
| Existing Scene              | If <i>Copy Existing Scene</i> is selected, link the scene that should serve as the template for the first scene here.   |
| First Scene Ambient Sounds  | An audio clip of ambient environmental sounds to play when the first scene is open.   |
| First Scene Music           | An audio clip of background music to play when the first scene is open.   |
| Install Gold Currency Group | Installs the <i>Gold Currency Group</i> template that consists of gold, silver, and copper.   |
| Install Armor Classes       | Installs the RPG Armor Classes template that consists of cloth, leather, and plate armor classes.   |
| Install Character Stats     | Installs the RPG Character Stats template that consists of stamina, intellect, strength, and agility.   |
| Install Item Qualities      | Installs the RPG Item Qualities template that consists of the poor, common, uncommon, rare, epic, legendary, and heirloom item qualities.   |
| Install Power Resources     | Installs the RPG Power Resources template that consists of health, mana, rage, and energy.  |
| Install Unit Toughnesses    | Installs the RPG Unit Toughnesses template package that consists of 2 man, 5 man, 10 man, 2   |

## Install Weapon Skills

man, solo dungeon minion, and solo dungeon boss unit toughnesses.  
Installs the RPG Weapon Skills template package that consists of bow, crossbow, dagger, fist, one hand axe, one hand mace, one hand sword, shield staff, two hand axe, two hand mace, two hand sword, unarmed, and wand weapon skills.

# Creating A New Game

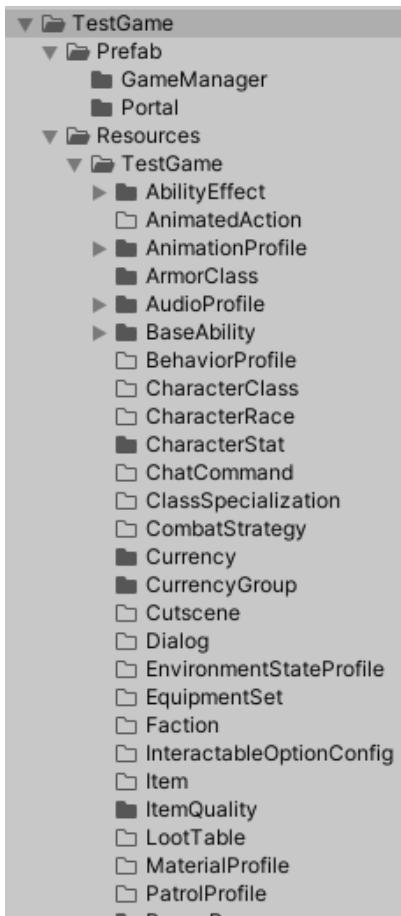
After choosing the appropriate options for your game, click Create.



# Content Created

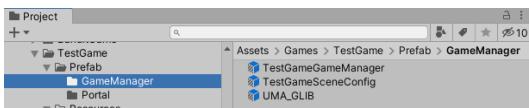
## Folder Structure

A folder structure similar to what is shown in the picture below will have been created.



## Game Manager Prefabs

In the Prefab/GameManager folder you can find 3 prefabs. The purpose of each is discussed below.



### GameManager

The Game Manager prefab contains all of the scripts necessary to run the game. It also contains the global game configuration in the SystemConfigurationManager, which you can edit to customize global options for the game.

The Game Manager should only ever exist in the game loading scene, which the wizard will have setup already.

### SceneConfig

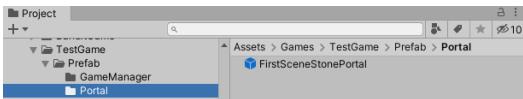
The Scene Config prefab is a special prefab that can go in any scene to allow you to press the Play button in Unity and have the game load correctly.

### UMA\_GLIB

The UMA Global Library is required for the Unity Multipurpose Avatar system to function properly, and will have already been placed in the game loading scene by the wizard.

## Portal Prefab

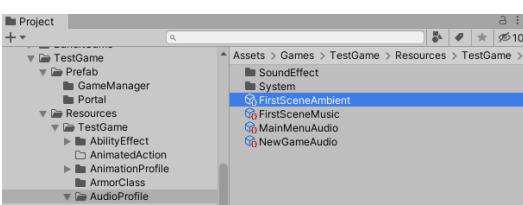
In the Prefab/Portal folder you can find a portal prefab. This object can be placed in any scene to create a portal that your player can walk through to return to the first scene.



## Scriptable Objects

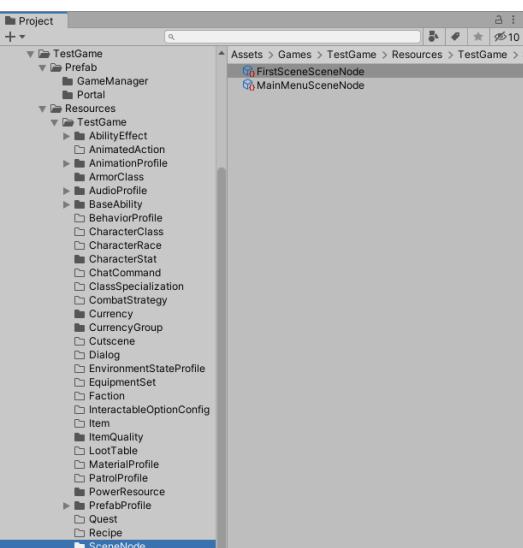
### Audio Profiles

If audio files were chosen on the New Game Wizard window, then AudioProfile scriptable objects will exist in the Resources/GameName/AudioProfile folder. These objects contain links to the audio files that were selected.



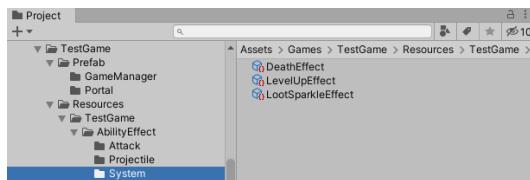
### Scene Nodes

Scene Nodes for the Main Menu and First Scene can be found in the Resources/GameName/SceneNode folder. The objects contain metadata about the 2 scenes, including the name of the scene file on disk, the display name to be used in-game on the minimap title, and the name of the audio profiles to play when that scene is open.



## System Effects

System Effects can be found in the Resources/GameName/AbilityEffect/System folder. These are special visual and audio effects activated by the system when the player dies, when the player gains a level, and when a dead enemy has loot that can be collected. The Game manager will have been automatically configured to use these effects.



## Unit Profiles

Unit profiles are character definitions and can be found in the Resources/GameName/UnitProfile/Player folder. By default, a definition for an UMA character, and a standard mecanim character will have been created. The Game Manager will have been configured to use whichever unity type you selected on the New Game Wizard screen.



## Other Scriptable Objects

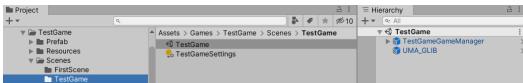
Depending on which other options were selected under the Common RPG Building Blocks subheading on the New Game Wizard screen, you will find the appropriate scriptable objects in subfolders of the Resources/GameName folder.

## Scenes

### Loading Scene

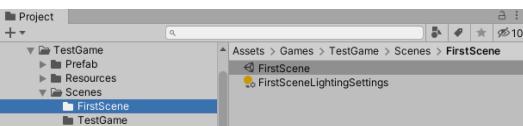
The loading scene is a special scene with the sole purpose of setting the Game Manager and UMA Global

Library to [DontDestroyOnLoad](#) so they persist through any scene changes, and then running the startup process of the Game Manager to initialize the data factory and UI, before loading the main menu.



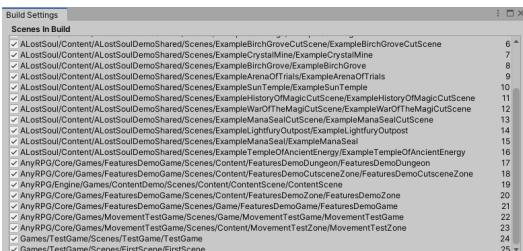
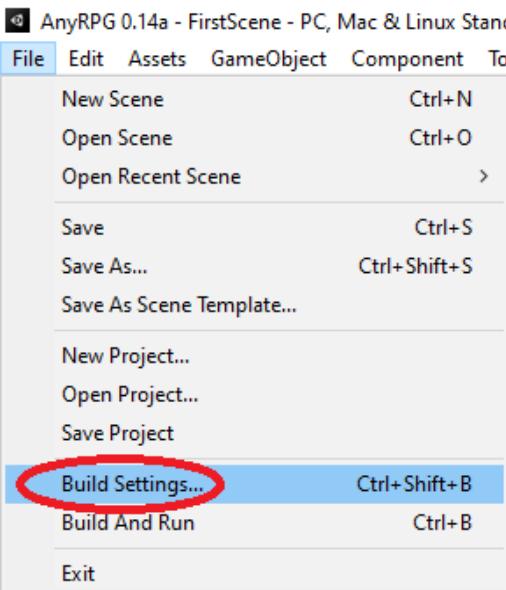
## First Scene

The first scene is the default scene that will load when a new game is started. It will contain the `SceneConfig` object, which is a special object that allows you to press play from that scene, and have the system automatically load the loading scene to perform game initialization. The contents of the scene will either be a blank template level with a plane your character can stand on, or the contents of whatever scene you chose to copy when configuring the New Game Wizard.



## Build Settings

By default, both the loading scene and the first scene will have been added to the build settings, which can be accessed through the *File > Build Settings...* option from the Unity editor menu bar.

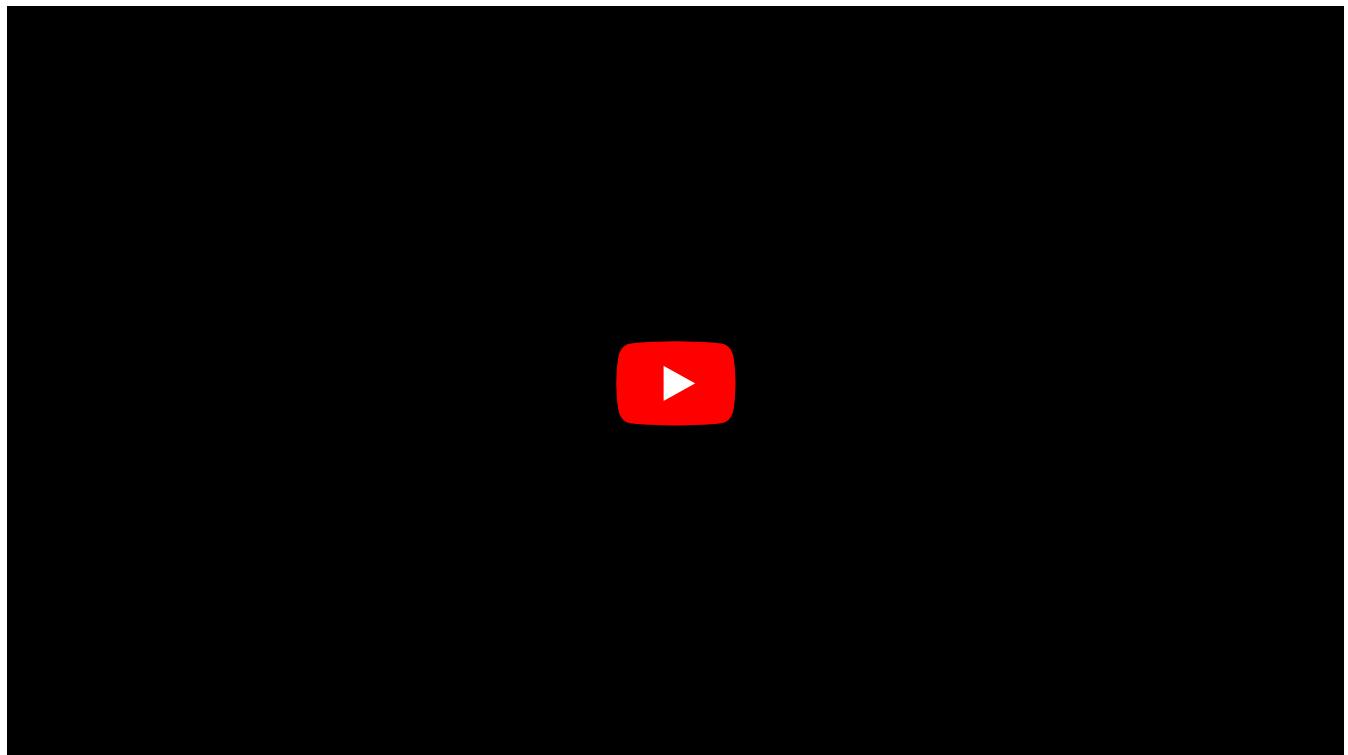


## Playing the Game

After the wizard completes running, the First Scene will be open. Press the Play button in the Unity editor to start playing.

## New Scene Wizard

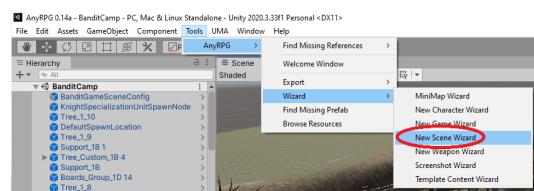
The New Scene Wizard will add a new scene to your project based on an existing scene, or using a blank template scene.

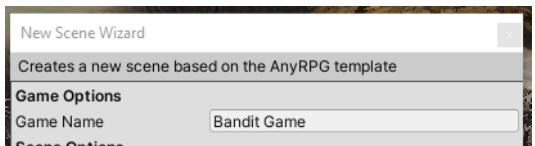


## Accessing The Wizard

The New Scene Wizard requires that one of your game scenes with either a GameManager or SceneConfig object is open in the editor so that it can determine which game to install the content into.

The New Scene Wizard can be opened by clicking *Tools* in the menu bar, and selecting *AnyRPG > Wizard > New Scene Wizard*.



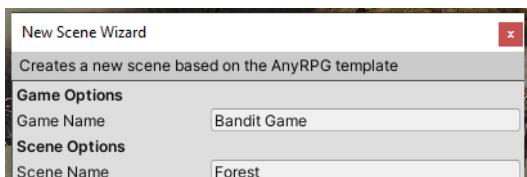


## Options

| Name                     | Description   |
|--------------------------|---|
| Game Name                | The name of the game. This will show on the main menu screen. The name of the game in your Unity project to install the template content in. This will be automatically filled in if you have any scene with the GameManager or SceneConfig prefabs open.                         |
| Scene Name               | The file name of the new scene. This will also show as the title for the minimap when that scene is open.   |
| Copy Existing Scene      | If this option is not chosen, the scene will be based on a blank template with only a large flat plane for the player to move around on. If this option is chosen, you can select an existing scene in the project to copy that will be used instead of the blank template scene. |
| Existing Scene           | If <i>Copy Existing Scene</i> is selected, link the scene that should serve as the template for the first scene here.   |
| New Scene Ambient Sounds | An audio clip of ambient environmental sounds to play when the scene is open.   |
| New Scene Music          | An audio clip of background music to play when the scene is open.   |

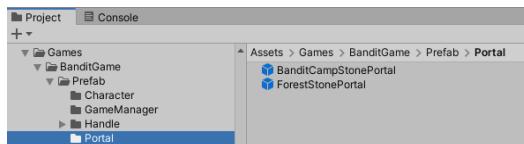
## Content Created

After choosing the appropriate options for the scene, click Create.



## Portal Prefab

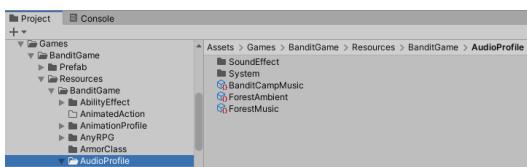
In the *Prefab/Portal* folder you can find a portal prefab. This object can be placed in any scene to create a portal that your player can walk through to return to the new scene.



## Scriptable Objects

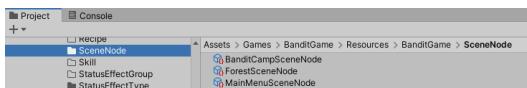
### Audio Profiles

If audio files were chosen on the New Game Wizard window, then *AudioProfile* scriptable objects will exist in the *Resources/GameName/AudioProfile* folder. These objects contain links to the audio files that were selected.



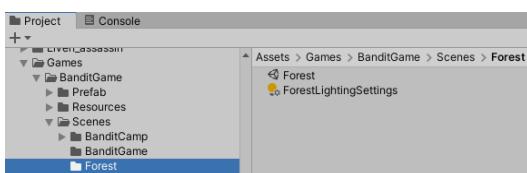
### Scene Node

Scene Node for the new scene can be found in the *Resources/GameName/SceneNode* folder. The objects contain metadata about the scene, including the name of the scene file on disk, the display name to be used in-game on the minimap title, and the name of the audio profiles to play when that scene is open.



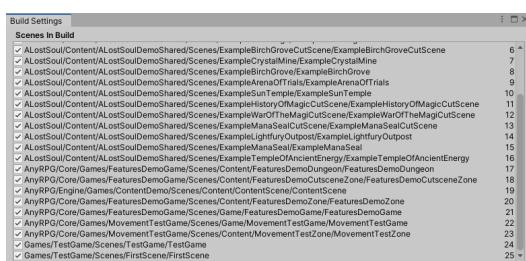
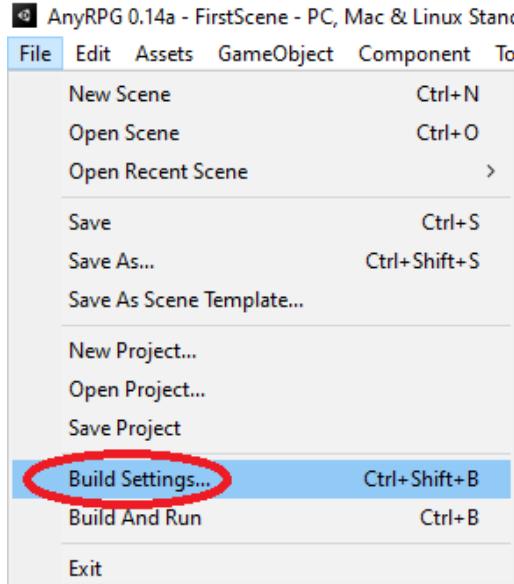
## Scene

The new scene can be found in the *GameName/Scenes/SceneName* folder. It will contain the *SceneConfig* object, which is a special object that allows you to press play from that scene, and have the system automatically load the loading scene to perform game initialization. The contents of the scene will either be a blank template level with a plane your character can stand on, or the contents of whatever scene you chose to copy when configuring the New Scene Wizard.



## Build Settings

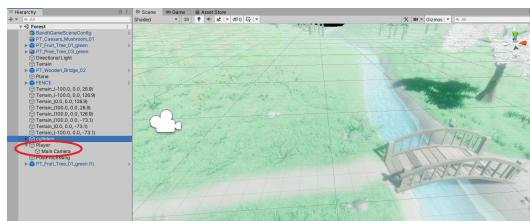
By default, the new scene will have been added to the build settings, which can be accessed through the *File > Build Settings...* option from the Unity editor menu bar.



## Next Steps

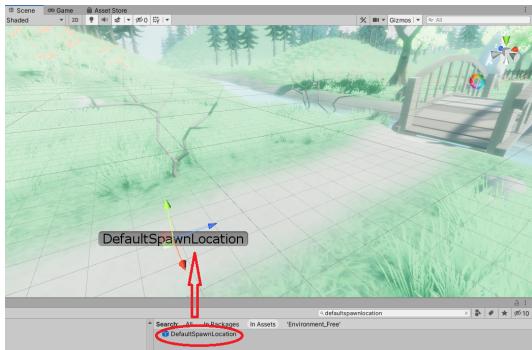
### Scene Cleanup

If you copied a demo scene from a Unity package, you will likely have to clean up the scene so that it works properly. Many demo scenes come with a simple player and camera. Since AnyRPG has a camera and a player, you will likely need to remove these types of objects from the scene.



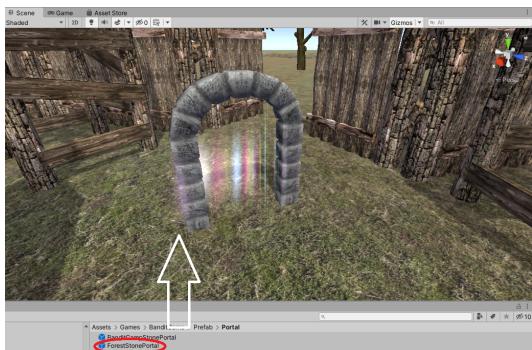
## Default Spawn Location

By default, the player will spawn at the world origin (0,0,0). To make the player spawn at a location of your choosing, search your project hierarchy for the *DefaultSpawnLocation* prefab and drag it into the scene where you want the player to spawn. Rotate the *DefaultSpawnLocation* prefab so the forward (z) axis is facing the direction you want the player facing when they spawn.



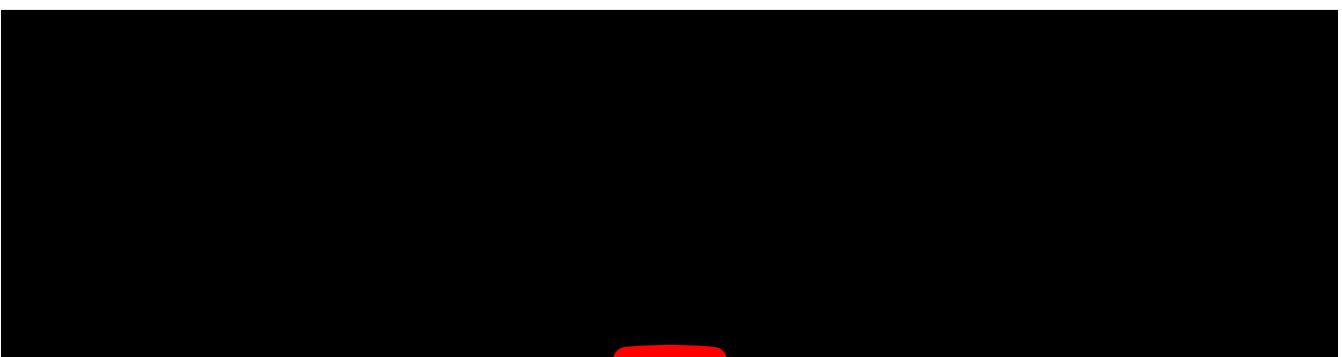
## Add A Portal To Load The Scene

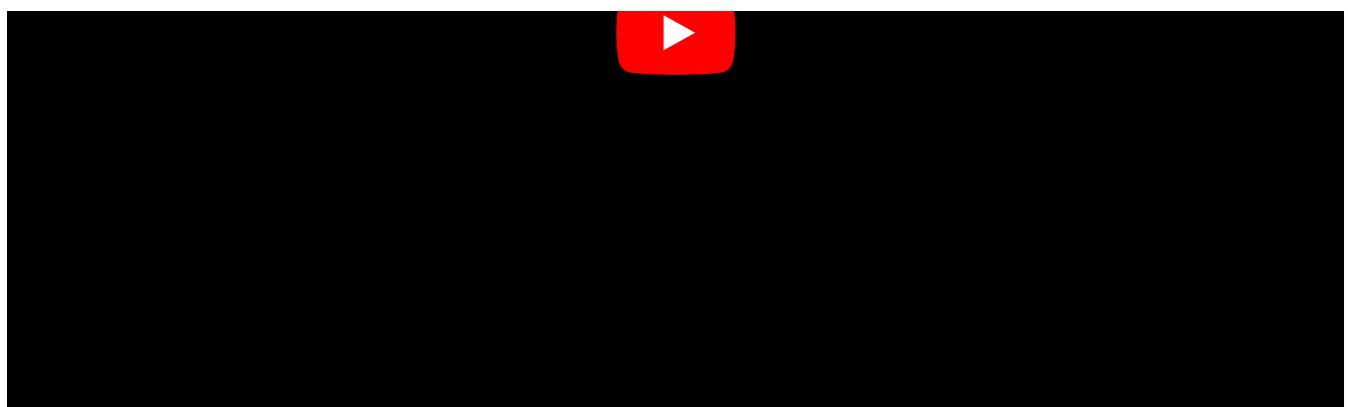
Decide what other scenes the player should be able to travel to from this scene and add portals to them. The New Scene Wizard created a portal prefab to use, so find it and drag it into the other scene(s).



## New Equipment Set Wizard

The New Equipment Set Wizard will create equipment, an equipment set for the equipment, an optional vendor collection, and an optional loot table.

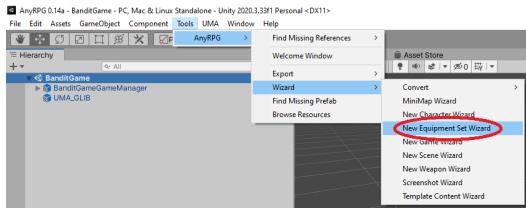




## Accessing The Wizard

The New Equipment Set Wizard requires that one of your game scenes with either a GameManager or SceneConfig object is open in the editor so that it can determine which game to install the content into.

The New Scene Wizard can be opened by clicking *Tools* in the menu bar, and selecting *AnyRPG > Wizard > New Equipment Set Wizard*.





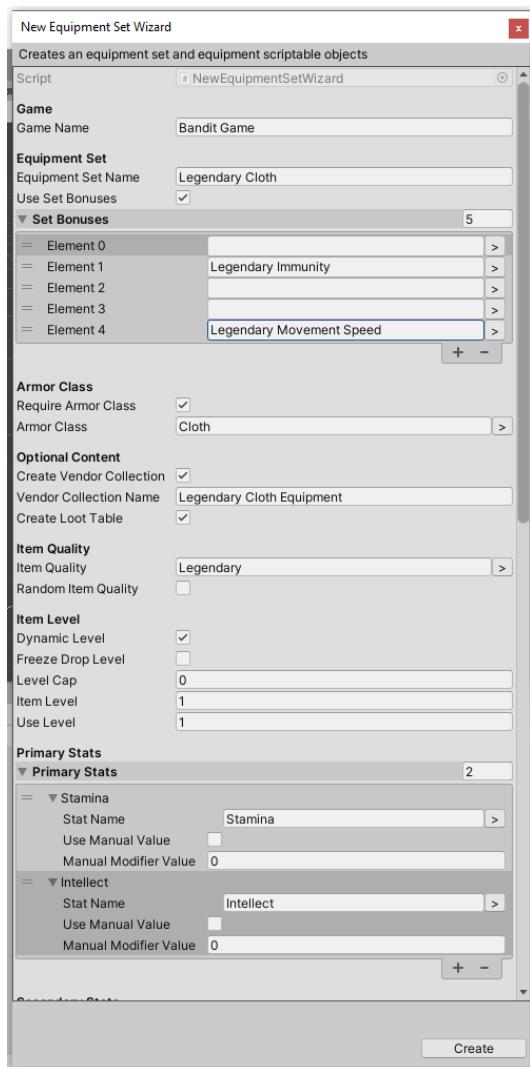
## Options

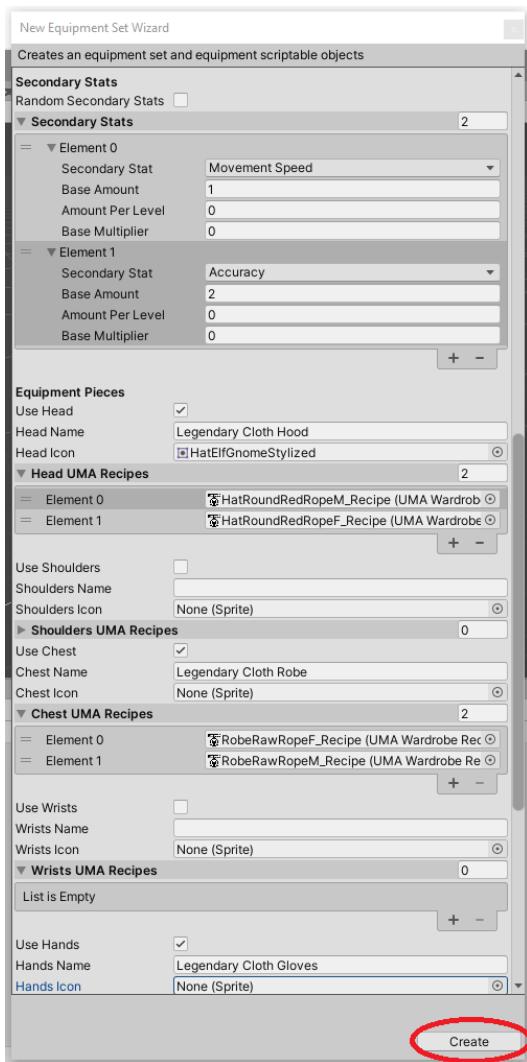
| Name                     | Description   |
|--------------------------|---|
| Game Name                | The name of the game. This will show on the main menu screen. The name of the game in your Unity project to install the template content in. This will be automatically filled in if you have any scene with the GameManager or SceneConfig prefabs open.                     |
| Equipment Set Name       | The name of the equipment set. If set bonuses are used, this name will show in the mouseover tooltip for equipment that is part of this set.  |
| Use Set Bonuses          | If true, equipment that is part of this set will show which pieces of the set are equipped in the mouseover tooltip. The character can also have different status effects applied depending on how many pieces of the set are equipped.                                       |
| Set Bonuses              | A list of status effects to apply depending on how many pieces of the equipment set are equipped. Each line represents the number of pieces that must be equipped, so blank lines must be provided in between bonuses if not every extra piece equipped is providing a bonus. |
| Require Armor Class      | If true, the character must know the armor class listed to be able to equip the item.   |
| Armor Class              | If an armor class is provided, the equipment will have the armor value determined based on what the default is for that armor class. This can also affect whether or not the character is able to equip the item.   |
| Create Vendor Collection | If true, a vendor collection will be created with all the equipment so that it can be purchased from a vendor.  |
| Vendor Collection Name   | The display name of the vendor collection in the vendor window.   |
|                          | If true, a loot table will be created that can be   |

|                         |  |
|-------------------------|--|
| Create Loot Table       | assigned to enemies, allowing this equipment to be gained as a reward for defeating them.  |
| Item Quality            | The item quality that will be assigned to all equipment in this set.   |
| Random Item Quality     | If true, the equipment will have a random item quality assigned when looted, crafted, or purchased.  |
| Dynamic Level           | If true, the equipment will scale up to match the character level.   |
| Freeze Drop Level       | If true, and dynamic level is set, the equipment will be fixed at the level the character was when the item was looted, crafted, or purchased.   |
| Level Cap               | If this is set to anything other than zero, equipment with a dynamic level will have this value as the maximum level it can scale to or freeze at.   |
| Item Level              | If dynamic level is false, the equipment will have this fixed level.   |
| Use Level               | The level the character must be to equip this equipment.   |
| Primary Stats           | A list of primary stats that will apply to each piece of equipment.  |
| Random Secondary Stats  | If true, the secondary stats will be chosen random from the list, up to the limit defined by the item quality.   |
| Secondary Stats         | A list of secondary stats that will apply to each piece of equipment.  |
| Use <PieceType>         | For each type of equipment, if this is true, equipment will be created.  |
| <PieceType> Name        | For each type of equipment, the display name of that piece.  |
| <PieceType> Icon        | For each type of equipment, the icon that will be used in the inventory, on the character window, etc.   |
| <PieceType> UMA Recipes | Optional. For each type of equipment, UMA recipes that will determine which UMA gear is applied to UMA characters when the gear is equipped. Provide one recipe here for each race (male/female), and the correct item for the current |

# Content Created

After choosing the appropriate options for the scene, click Create.



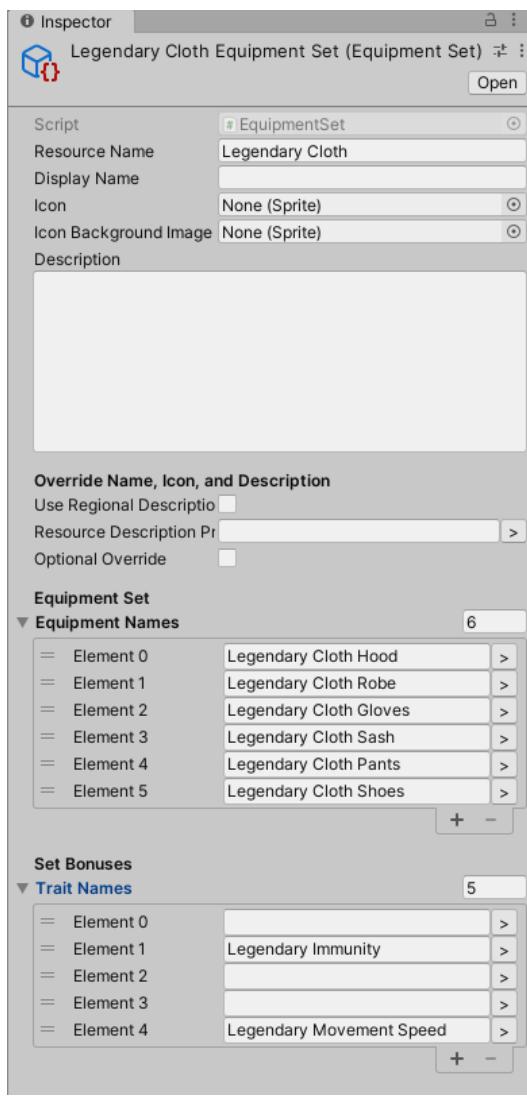


## Scriptable Objects

### Equipment Set

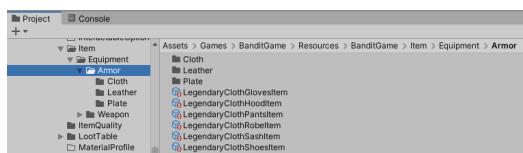
An equipment set can be found at the *Resources/GameName/EquipmentSet* folder. It defines the equipment that belongs to the set, and any set bonuses.





## Equipment

Equipment can be found in the *Resources/GameName/Item/Equipment/Armor* folder. These objects contain all the information for each individual piece of equipment.



## Vendor Collection

If selected, a vendor collection can be found in the *Resources/GameName/VendorCollection* folder. This can be added to a vendor to allow the purchase of the equipment.



## Loot Table

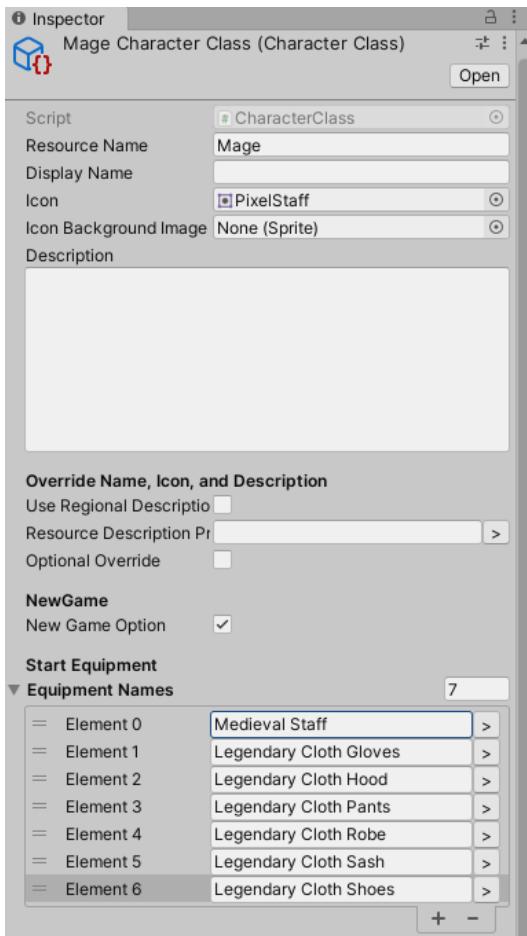
If selected, a loot table can be found in the *Resources/GameName/LootTable* folder. This can be added to a LootableCharacter interactable option on any character to allow the equipment to be looted when the character is defeated in combat.



## Next Steps

### Assign Gear to a Class or Specialization

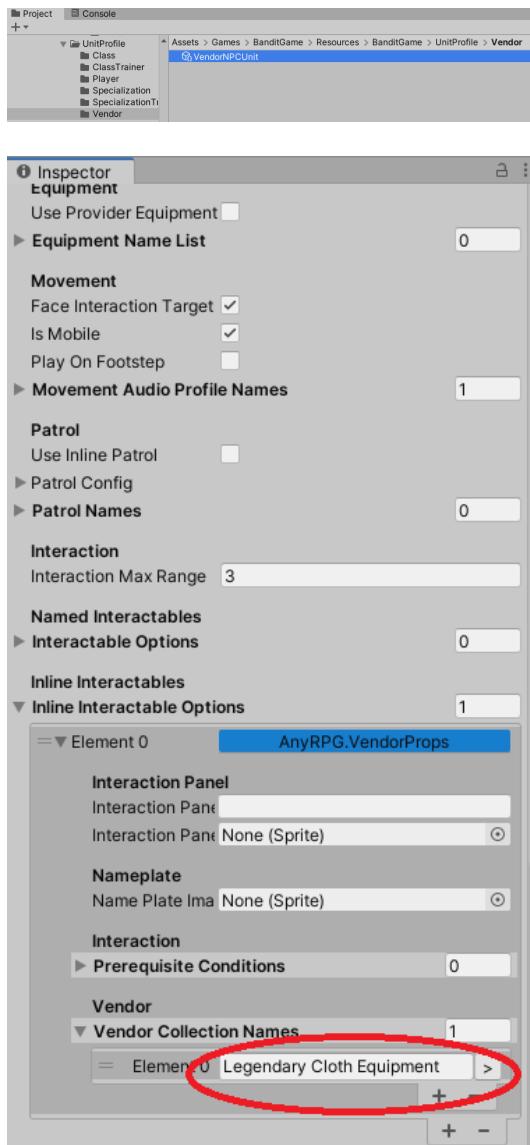
If you want a character class or specialization to start new games wearing the equipment, you can assign it to the class or specialization as starting equipment.



### Make Gear Purchasable

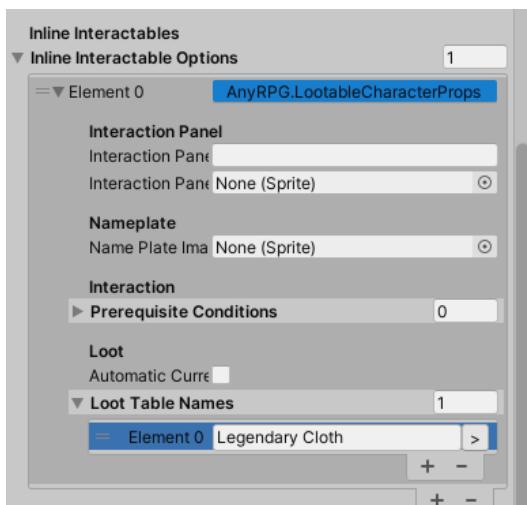
You can add the gear to a vendor by adding it to the *Vendor Collection Names* list on the *VendorProps Interactable Option* on the Unit Profile scriptable object of any NPC. A Sample vendor can be installed by

using the [Template Content Wizard](#) and searching for *Vendor NPC*.



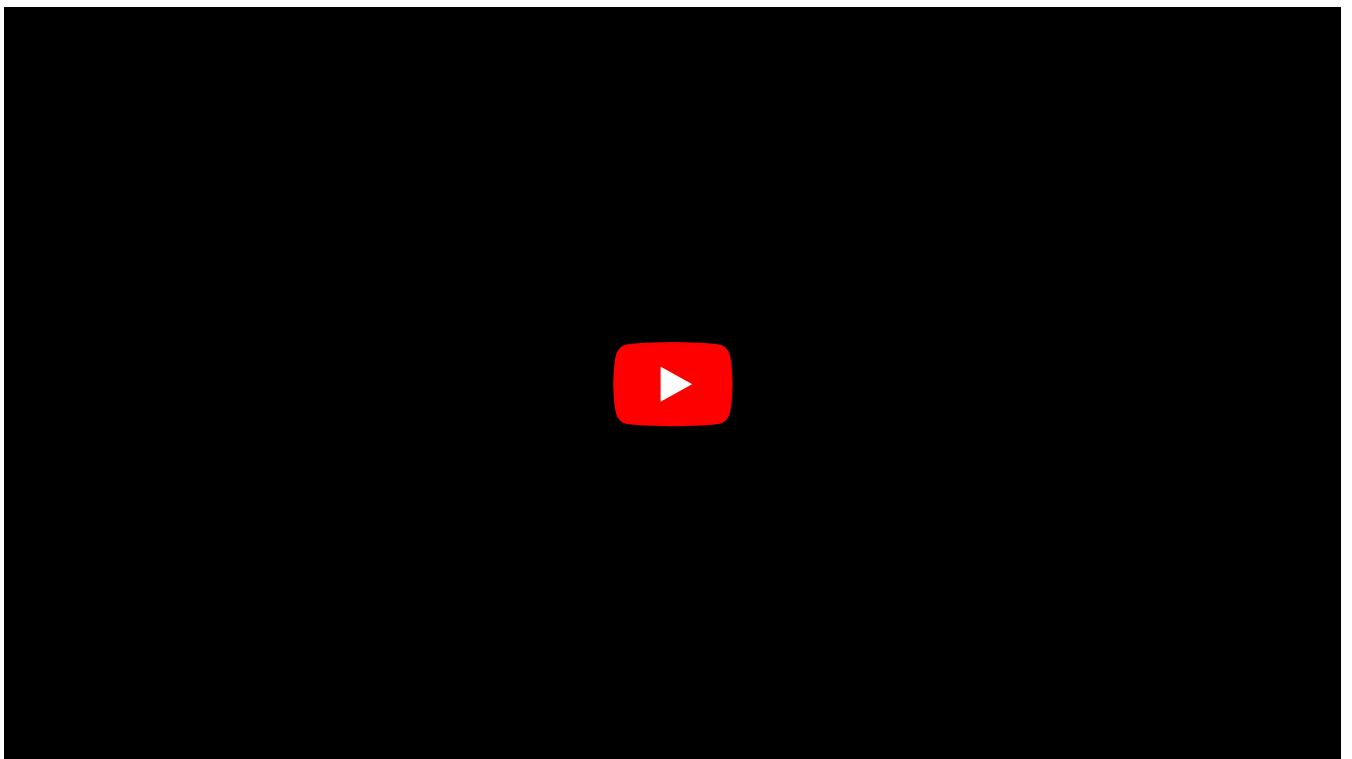
## Make Gear Lootable

Add a *LootableCharacterProps* to any *Unit Profile* and add the new loot table for this equipment to the Loot Table Names list. When you defeat that character in combat, you will have a chance to loot one of the items.



# Animation Profile Wizard

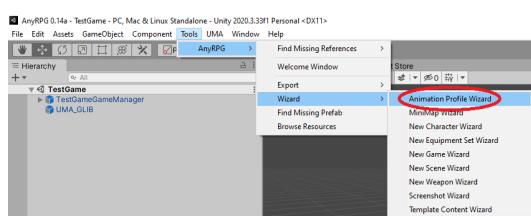
The Animation Profile Wizard will create an animation profile from a list of animations and optionally add the required events to attack animations.

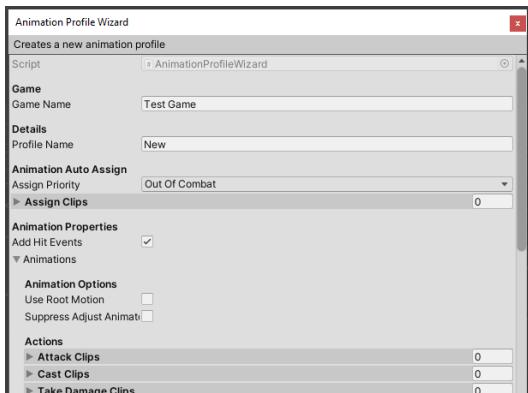


## Accessing The Wizard

The Animation Profile Wizard requires that one of your game scenes with either a GameManager or SceneConfig object is open in the editor so that it can determine which game to install the content into.

The Animation Profile Wizard can be opened by clicking *Tools* in the menu bar, and selecting *AnyRPG > Wizard > Animation Profile Wizard*.





## Options

| Name            | Description   |
|-----------------|---|
| Game Name       | The name of the game. This will show on the main menu screen. The name of the game in your Unity project to install the template content in. This will be automatically filled in if you have any scene with the GameManager or SceneConfig prefabs open. |
| Profile Name    | The name of the animation profile. This is the name that will be called from abilities, weapons, unit prefab properties, etc.   |
| Assign Priority | Determines whether clips added to the <i>Assign Clips</i> property will be assigned as out of combat or in combat animations.   |
| Assign Clips    | Drag a list of animation clips into this list. The wizard will attempt to assign them to the correct animations in the <i>Animations</i> property based on their names.   |
| Add Hit Events  | If true, any clips in the <i>Attack Clips</i> list in the <i>Animations</i> property that do not have a <code>Hit()</code> event will have one added.   |
| Animations      | Lists of animations. See <a href="#">Animation Profile</a> for a description of animation profile properties.   |

## Configuration

See [Animation Profile Configuration](#).

# Content Created

After assigning the appropriate animations, click Create.



## Scriptable Objects

### Animation Profile

An [Animation Profile](#) can be found at the `Resources/GameName/AnimationProfile` folder.

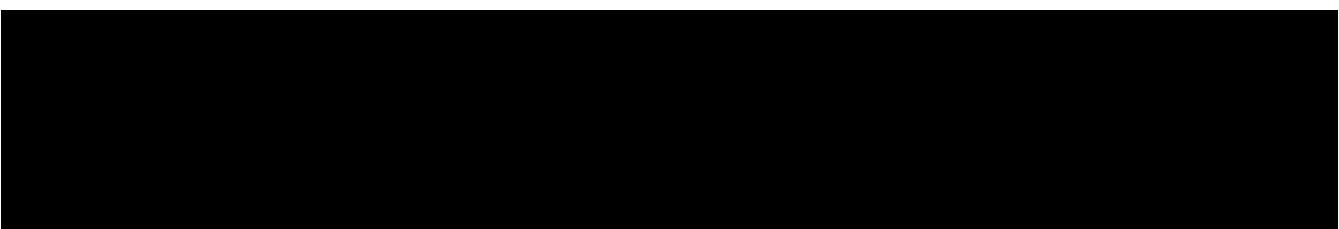


## Next Steps

See [Animation Profile Next Steps](#).

## Screenshot Wizard

The Screenshot Wizard helps you quickly make icons of any 3D model.

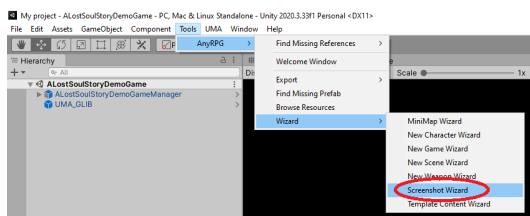




## Accessing the Wizard

The Screenshot Wizard is designed to make icons of 3D models. The recommended workflow is to open a 3D model prefab in the Unity Editor before accessing the wizard.

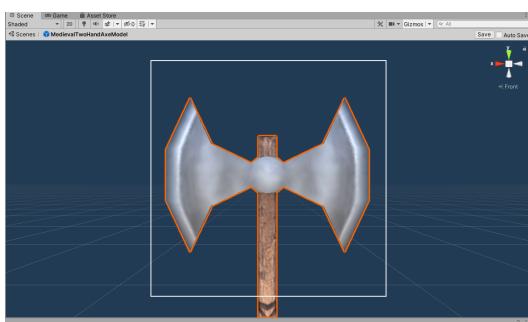
The Screenshot Wizard can be opened by clicking *Tools* in the menu bar, and selecting *AnyRPG > Wizard > Screenshot Wizard*.





## Making an Icon

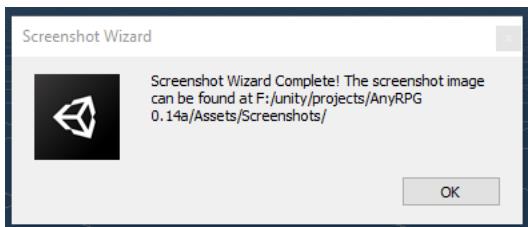
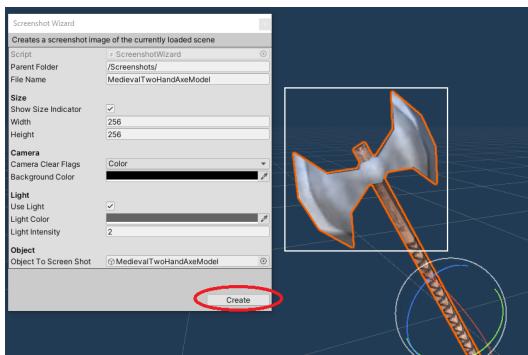
By default, the screenshot wizard will show a white indicator square in the scene view window. This square represents the size and contents of the image that will be saved to disk.



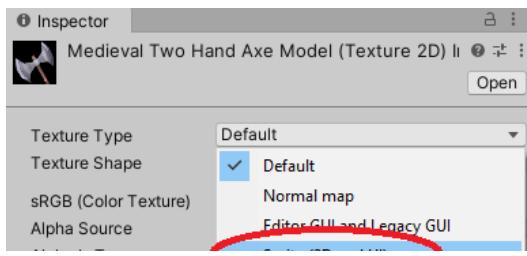
You can adjust the background of the image, and the lighting that will be used when the screenshot is taken, but those settings will not show in the scene view. You may have to take a few screenshots to get the settings just right. A full list of the settings can be found below.

It is recommended to experiment with the rotation of the item to ensure the most distinct or unique feature takes up the full frame of the size indicator preview.

Once you are satisfied with the settings, click the *Create* button and the image will be saved to disk.



Don't forget to open the saved image in the inspector and set the *Texture Type* to *Sprite (2D and UI)* so you can use the image as an icon.



## Settings

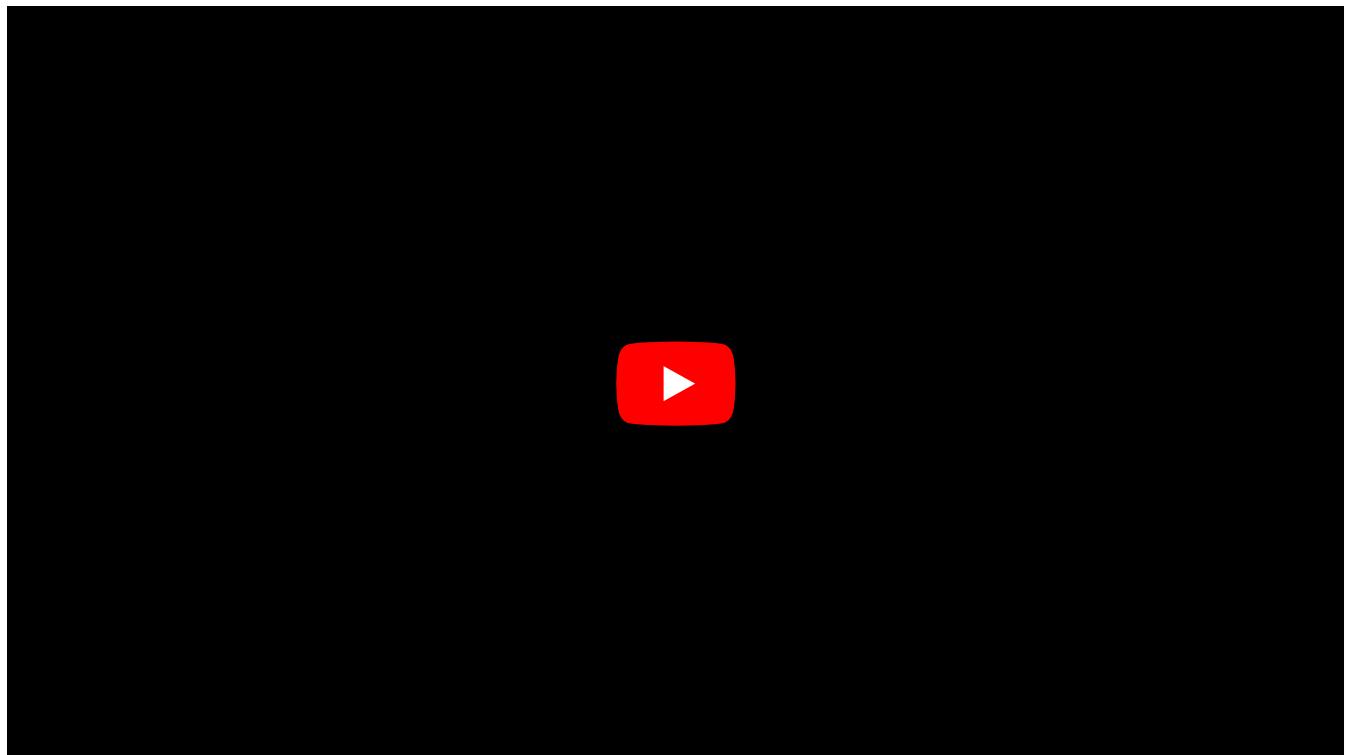
| Name                | Description   |
|---------------------|---|
| Parent Folder       | The folder that the screenshot image will be saved in, relative to the Assets folder in your project.   |
| File Name           | The name of the image file that will be saved to disk. If a file of the same name exists, the file name will have the current date and time appended to it to make it unique.                                     |
| Show Size Indicator | If true, a white indicator square will show on screen to represent the size and contents of the screenshot.   |
| Width               | The width of the output image   |
| Height              | The height of the output image  |
| Camera Clear Flags  | <p><b>Depth</b><br/>The image will have a transparent background</p> <p><b>Color</b><br/>The image will have a solid color background</p> <p><b>Skybox</b><br/>The image will have a skybox in the background</p> |
| Background Color    | If the Color option is chosen for the <i>Camera Clear Flags</i> , this is the color that will be used.  |
| Use Light           | If true, a light will be attached to the camera that takes the screenshot, emulating the settings you see in the scene view.  |
| Light Color         | If <i>Use Light</i> is selected, the color of the light to shine on the object.   |
| Light Intensity     | If <i>Use Light</i> is selected, the brightness of the light shine on the object.   |
|                     | Although the screenshot will take a picture of whatever is shown in the size indicator, the camer   |

## Object To Screen Shot

must be attached to some prefab in the scene view. This setting controls what object the camera is attached to.

## Template Content Wizard

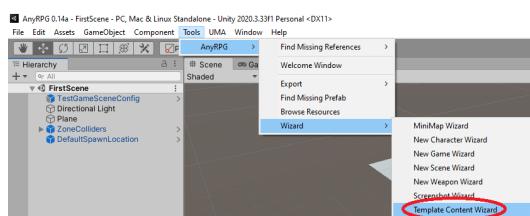
The Template Content Wizard allows you to quickly install template content in your game.

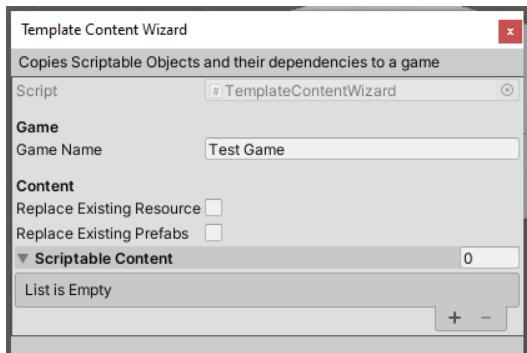


## Accessing the Wizard

The template content wizard requires that one of your game scenes with either a GameManager or SceneConfig object is open in the editor so that it can determine which game to install the content into.

The Template Content Wizard can be opened by clicking *Tools* in the menu bar, and selecting *AnyRPG > Wizard > Template Content Wizard*.



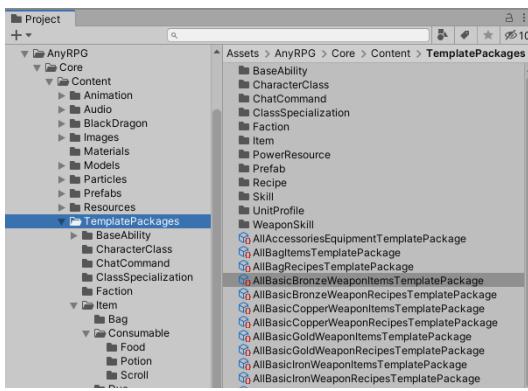


## Settings

| Name                       | Description  |
|----------------------------|--|
| Game Name                  | The name of the game in your Unity project to install the template content in. This will be automatically filled in if you have any scene with the GameManager or SceneConfig prefabs open.              |
| Replace Existing Resources | If true, resources with the same name and folder location will be overwritten. This can be useful if you have made modifications to resources, and want to reset them to their original template values. |
| Replace Existing Prefabs   | If true, prefabs with the same name and folder location will be overwritten. This can be useful if you have made modifications to prefabs, and want to reset them to their default values.               |
| Scriptable Content         | A list of template content packages to install.  |

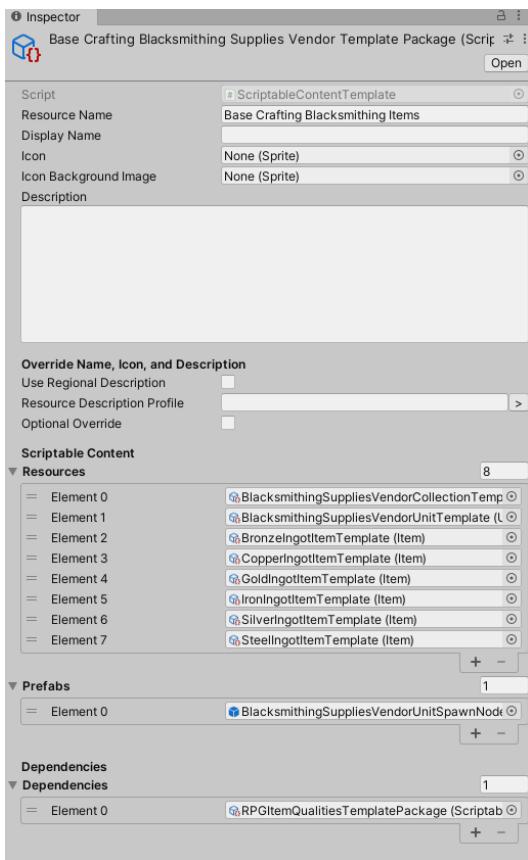
## Available Template Content

Most of the content in the [Features Demo Game](#) can be installed using the Template Content Wizard. There are over 1000 template packages available, so it can be helpful to know what is available. You browse template packages by looking in the AnyRPG/Core/Content/TemplatePackages folder in your project.



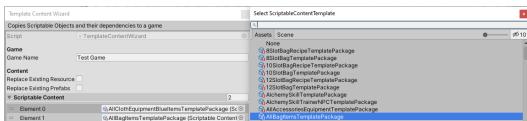
## Template Packages

A Template package consists of resources (Scriptable Objects) and prefabs. Template packages can also have dependencies on other template packages to make re-using packages easy. In general, any package you choose will install all dependencies for it to work without needing to manually install them.



## Installing Content

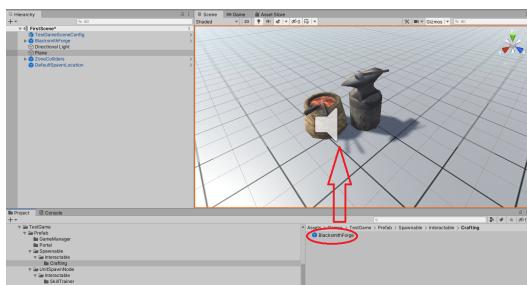
Select content from the object browser window or drag it into the list, and click Install.



## Using Template Content

### Prefs

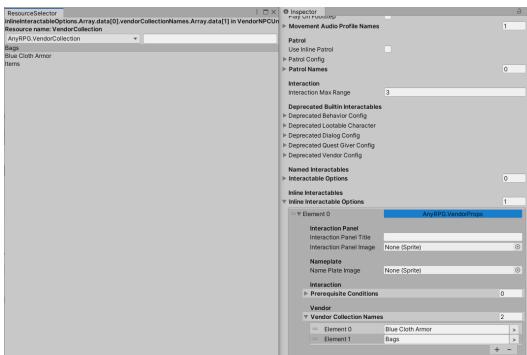
After install template content that includes prefabs such as interactables or unit (character) spawners, you will need to add those prefabs to a scene. You can find them under the Prefab folder in your game folder. Once you find a prefab, just drag it into the scene whereever you want it placed.

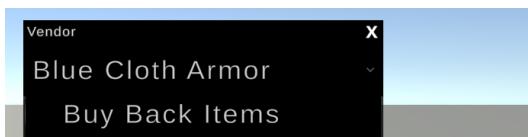


### Scriptable Objects

Some types of template content do not include any prefabs that can be added to a scene, but still require you to define where you want to use them. Examples include vendor collections and loot tables.

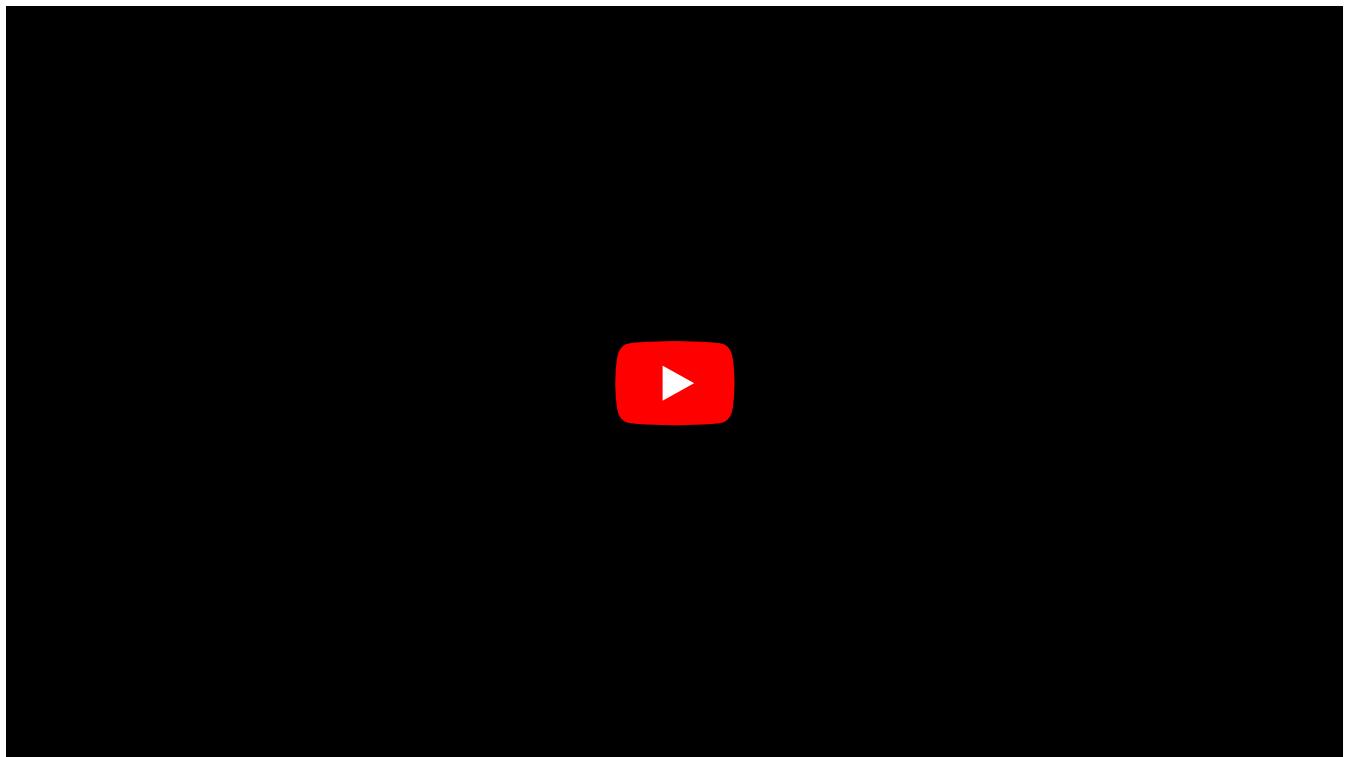
In the screenshot below you can see how you would add vendor collections to a vendor NPC Unit Profile to make them available to purchase on the vendor in game.





## New Character Wizard

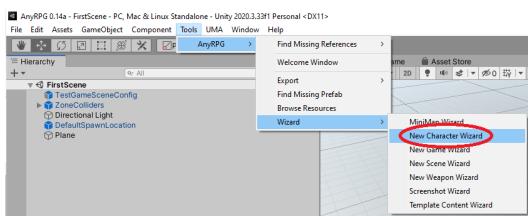
The new character wizard helps you import character models and set them up as NPC or player characters.

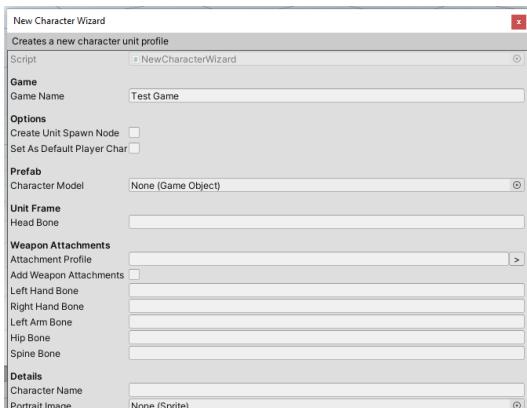


## Accessing the Wizard

The new character wizard requires that one of your game scenes with either a GameManager or SceneConfig object is open in the editor so that it can determine which game to install the content into.

The Template Content Wizard can be opened by clicking *Tools* in the menu bar, and selecting *AnyRPG > Wizard > New Character Wizard*.





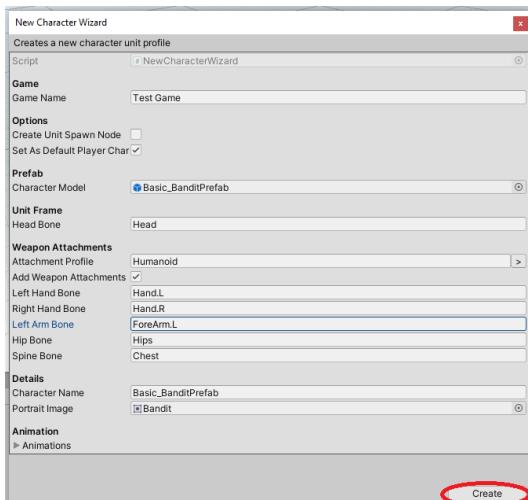
## Settings

| Name                            | Description   |
|---------------------------------|---|
| Game Name                       | The name of the game in your Unity project to install the template content in. This will be automatically filled in if you have any scene with the GameManager or SceneConfig prefabs open.   |
| Create Unit Spawn Node          | If true, a prefab that can spawn this character will be created. This is useful if the character will be used as an enemy or NPC.   |
| Set As Default Player Character | If true, the GameManager will be updated to use this character as the default player character.   |
| Character Model                 | Drag an FBX or prefab into this slot, and that model will be used as the character model.   |
| Head Bone                       | The bone that the camera will look at when taking picture for the unit frame. This should be automatically filled in when the character model field is filled if it has a common name, but you can enter the bone name manually if has an unusual name. |
| Attachment Profile              | An attachment profile contains a mapping of English names such as "Left Hand" to actual bones for attaching weapons. If the character is an UMA model, choose UMA, otherwise choose Humanoid.   |
| Add Weapon Attachments          | If true, several prefabs that contain attachment points for all common weapon types will be added to the model. This is not necessary for UMA characters.   |
| Left Hand Bone                  | The name of the bone to attach the left hand  |

|                 |   |
|-----------------|---|
| Right Hand Bone | attachment prefab to.<br>The name of the bone to attach the right hand attachment Prefab to.  |
| Left Arm Bone   | The name of the bone to attach the shield attachment to.  |
| Hip Bone        | The name of the bone to attach the hip attachment prefab to.  |
| Spine Bone      | The name of the bone to attach the spine attachment prefab to. This will also be used as the floating point in the Unit Profile; meaning when a character is floating in the water, everything below this bone will be submerged. |
| Character Name  | For NPCs, the name that will show above the characters head. For players, the name that will show in the character model selection screen when starting a new game.   |
| Portrait Image  | For players, the image that will show beside the character name in the character selection screen.  |
| Animations      | If this character has custom animations, enter them in this list to override the default character animations used by the system.   |

## Running the Wizard

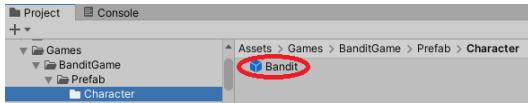
Once you have filled in all the settings, click *Create*.



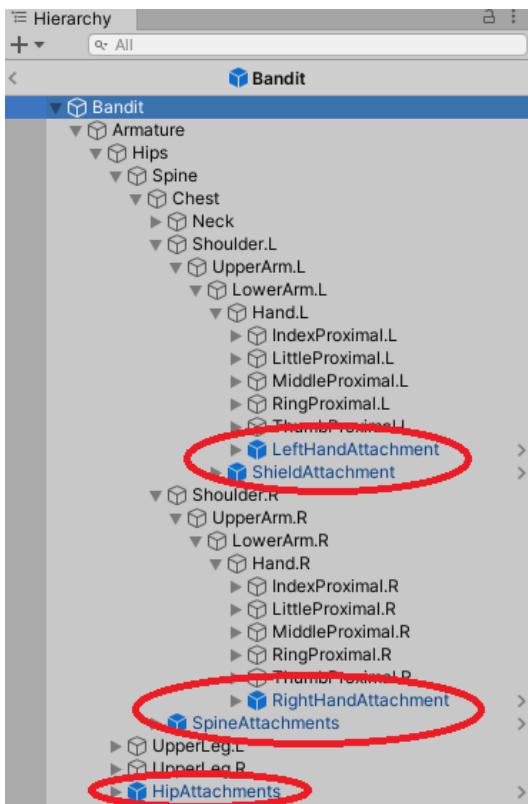
# Adjusting Weapon Attachments

Every character model is different and will have different dimensions and bone orientations. You will need to adjust the weapon attachment to ensure they have the correct orientation so that weapons properly line up with the hip, spine, hands etc when sheathed or held.

Open the character prefab that can be found in the GameName/Prefab/Character folder.



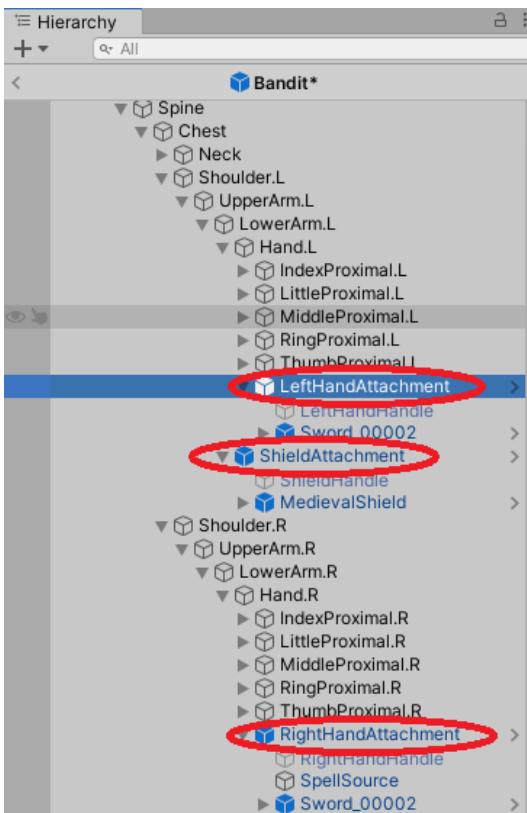
Find the attachments that have been added to the model.



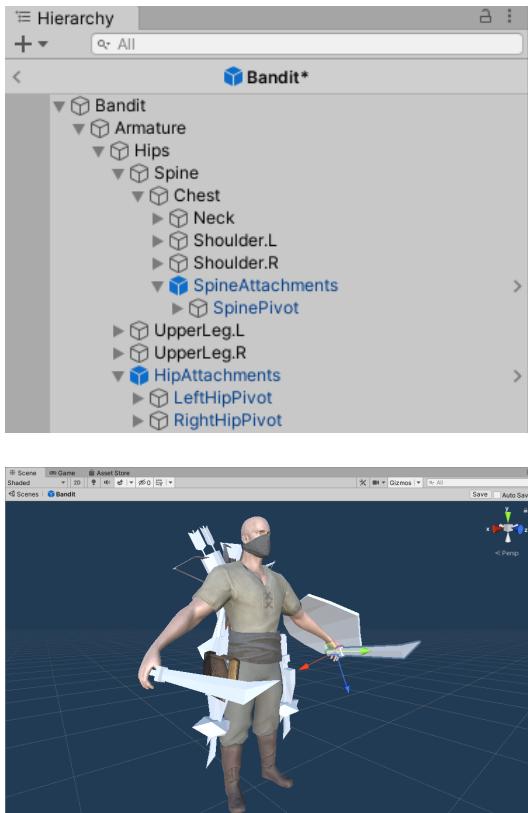
For each attachment, find the preview models included, and enable them so they are visible in the scene view.



Rotate and move the attachments directly (not the preview models) until everything looks aligned properly on the character.



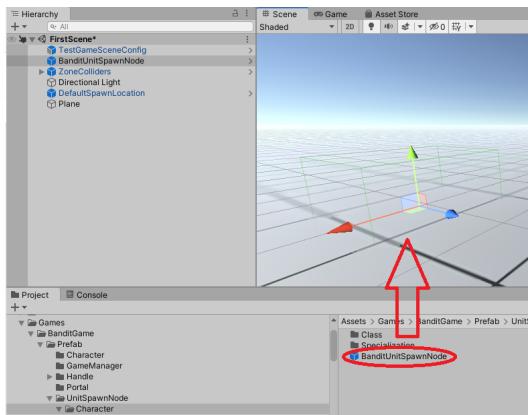
In the case of the spine and hip attachments, you can move/rotate the attachments directly, or the pivots, whichever you prefer.



Once everything looks properly aligned, you can disable the weapon previews and save your changes. When the character equips weapons in-game they should now have the correct positioning and alignment.

## Spawning NPC Characters In Game

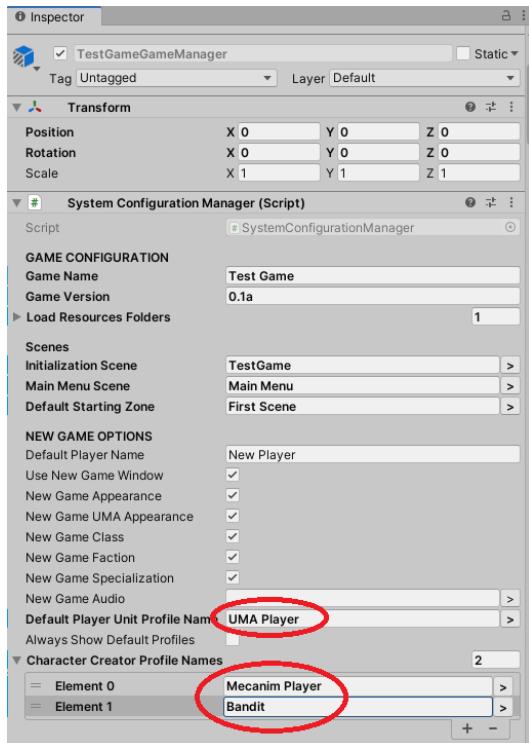
If the character is an NPC, find the Unit Spawn Node under the GameName/Prefab/UnitSpawnNode/Character folder in your project and drag it into the location in the scene you want to spawn in. When you start playing your game, the character will appear at that location.



## Player Characters

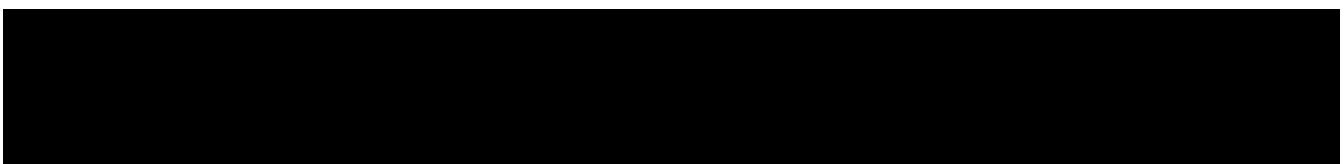
If the character is a player character and you selected the set as default player character option, it will be set in the Game Manager.

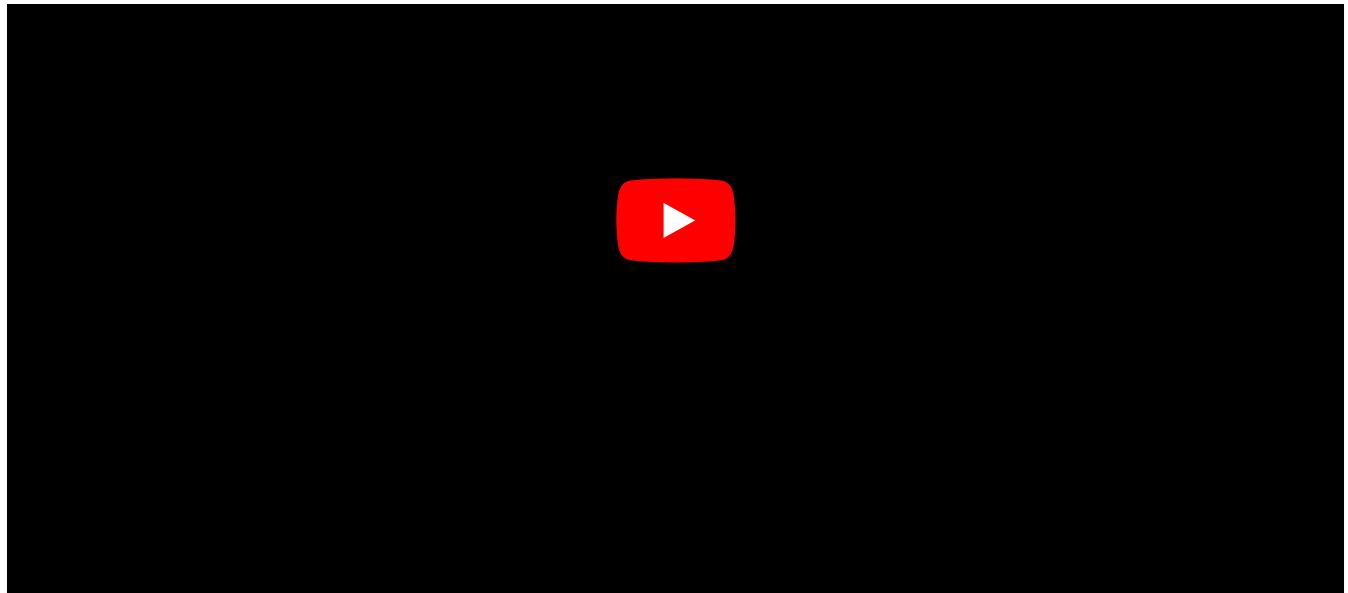
If you forgot to set that option, you can add the unit profile name to the *Default Player Unit Profile Name* field in the Game Manager. If you want to have multiple choices of player models, you can add them to the *Character Creator Profile Names* list.



## New Weapon Wizard

The new weapon wizard creates weapon items and special weapon handle prefabs that ensure a weapon is in the correct orientation when equipped.

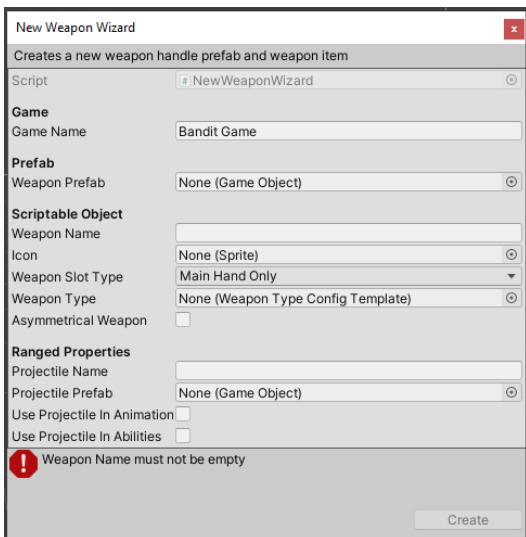
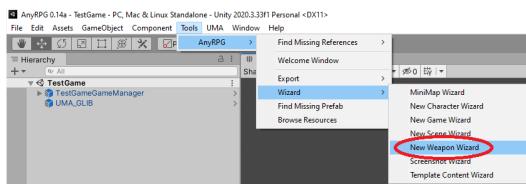




## Accessing the Wizard

The new weapon wizard requires that one of your game scenes with either a GameManager or SceneConfig object is open in the editor so that it can determine which game to install the content into.

The New Weapon Wizard can be opened by clicking *Tools* in the menu bar, and selecting *AnyRPG > Wizard > New Weapon Wizard*.



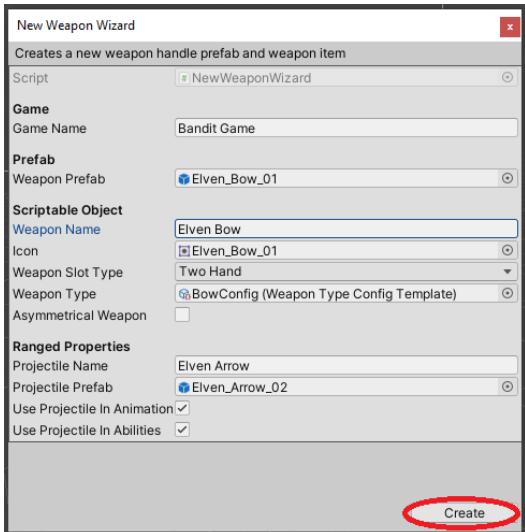
## Settings

| Name                | Description   |
|---------------------|---|
| Game Name           | The name of the game in your Unity project to install the template content in. This will be automatically filled in if you have any scene with the GameManager or SceneConfig prefabs open.   |
| Weapon Prefab       | Drag an FBX or prefab into this slot, and that mod will be used as the weapon model.  |
| Weapon Name         | The weapon name that will appear in tooltips, vendor lists, loot windows, etc.  |
| Icon                | The image to be used to represent the weapon in the inventory, character screen, vendor lists, loot windows, etc.   |
| Weapon Slot Type    | <p><b>Main Hand Only</b><br/> This weapon can only be equipped in the main hand slot. Any other valid weapon can still be equipped in the off hand slot.</p> <p><b>Off Hand Only</b><br/> This weapon can only be equipped in the off hand slot. Any other valid weapon can still be equipped in the main hand slot.</p> <p><b>Any Hand</b><br/> This weapon can be equipped in the main hand or off hand slot. Any other weapon can be equipped in the other slot.</p> <p><b>Two Hand</b><br/> This weapon takes up both hands. It will appear in the main hand slot, and remove any other weapon that is equipped in the off hand slot.</p> |
| Weapon Type         | The weapon type setting controls which animations and effects will be played when the weapon is used in combat. It will also determine which attachment point the weapon is attached to when it is sheathed on the character.   |
| Asymmetrical Weapon | Most weapons are symmetrical and will look the same if held in the main hand or off hand. For asymmetrical weapons such as claws, this should be set to true and separate handle prefabs will be created for the left and right hands.  |
| Projectile Name     | The base name that will be assigned for the projectile prefabs and prefab profiles. Leave this blank if the weapon is not ranged.   |

|                              |   |
|------------------------------|---|
| Projectile Prefab            | A Prefab to use for the projectile if this is a ranged weapon. Leave this blank if the weapon is not ranged.  |
| Use Projectile In Animations | For ranged weapons only. Should the projectile be shown during attack animations such as pulling an arrow from the quiver and drawing the bow string. This should not be checked if the ranged weapon does not have a special projectile prefab. In that case, the default projectile settings from the weapon type will apply. |
| Use Projectile In Abilities  | For ranged weapons only. Should the projectile be shown during flight to the target after the attack animation is finished. This should not be checked if the ranged weapon does not have a special projectile prefab. In that case, the default projectile settings from the weapon type will apply.                           |

## Content Created

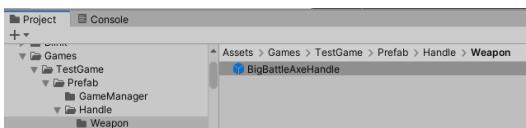
After choosing all the settings, click Create to run the wizard.



The following content will be created.

### Weapon Handle Prefab

Weapon handle, projectile handle, and projectile prefabs can be found in the *GameName/Prefab/Handle/Weapon* folder. The weapon handle is a convenient prefab that contains the weapon model along with a handle that is a visual indicator to help set the correct scale (size) and rotation so that the weapon will look good when held or sheathed.

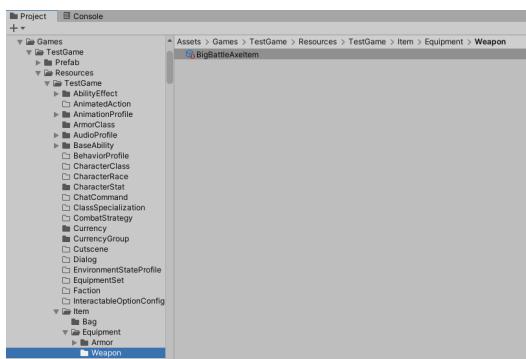


## Prefab Profiles

Prefab profiles, a type of scriptable object that contains the link to the prefab, can be found in the *Gamename/Resources/GameName/PrefabProfile/Weapon* folder.

## Weapon Item

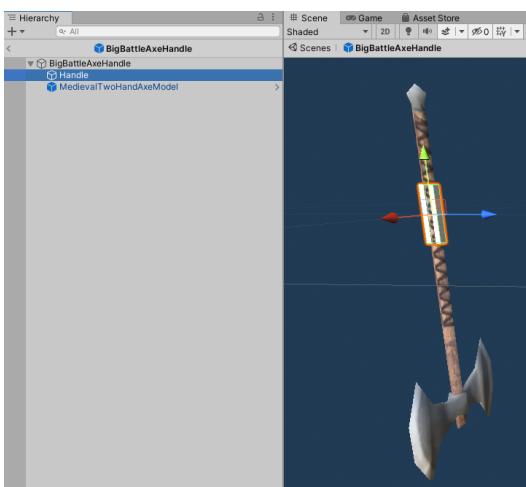
The weapon item Scriptable Object can be found in the *GameName/Resources/GameName/Item/Equipment/Weapon* folder.



## Adjusting the Weapon Handle

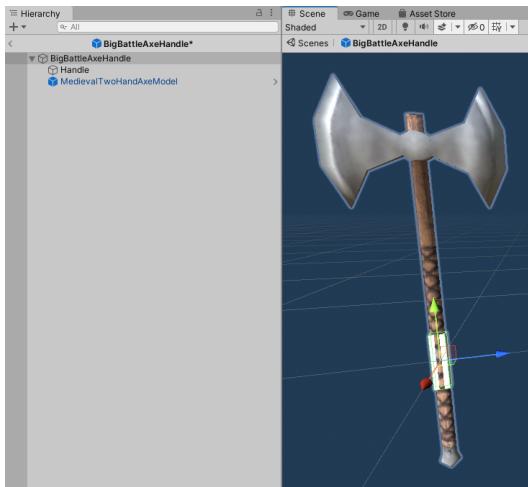
### Weapons

The handle object in the weapon handle prefab is a visual indicator that shows what the size and orientation of the weapon should be when gripped in a character's hand. The blue (z) axis is the forward direction of the hand, the yellow (y) axis is the top of the hand, and the red (x) axis is the right side of the hand.



Set the scale of the weapon model larger or smaller if necessary until the handle looks about the right size in relation to it. You can imagine that if gripped, the handle would fit perfectly in a fist.

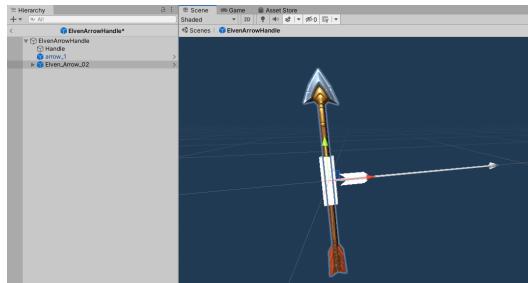
Set the rotation and position of the weapon model so that it would look correct if the handle was gripped in a hand with the character's arm straight in front of them.



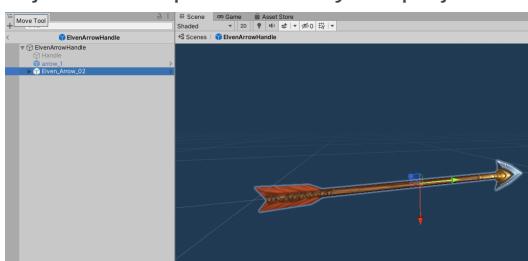
Disable the Handle object so that it is not visible, and save the changes to the weapon handle prefab.

## Projectiles

The steps for projectiles are similar to the steps for weapons. When you open the prefab, you will see a sample projectile that represents the correct position and rotation.



Align the projectile so it matches the position and rotation of the sample projectile, then disable all other objects in the prefab so only the projectile is visible, and save the changes.



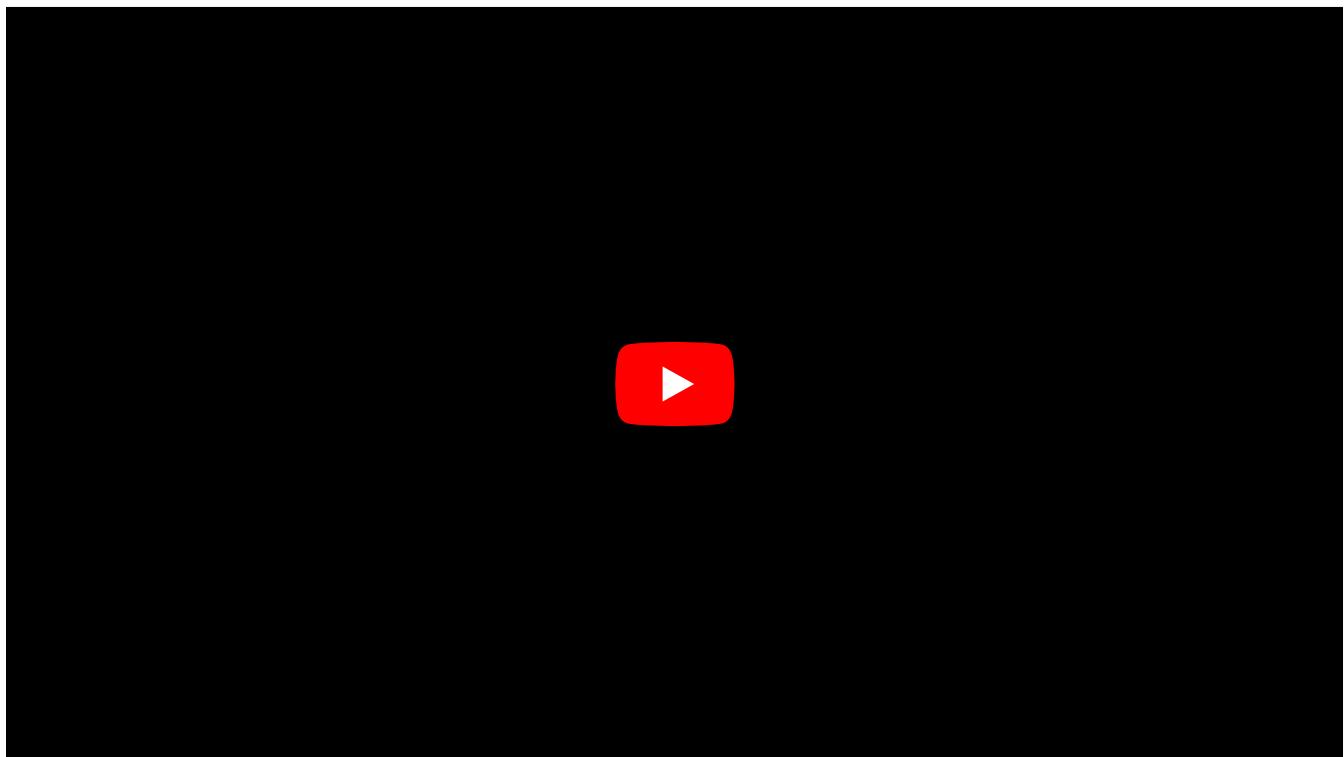
## Next Steps

To make the weapon available in game you may want to take any of the following actions.

- Configure the weapon by adding an item quality, setting a purchase price, or requiring a specific weapon skill to equip the weapon.
- Add the weapon to the default equipment for a character class or specialization.
- Add the weapon to a vendor collection and make it available on a vendor to purchase.
- Add the weapon to a loot table so it can be obtained by defeating an enemy.

## Minimap Wizard

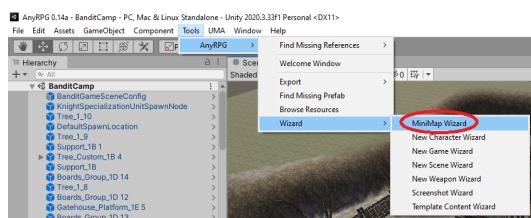
The minimap wizard creates a top down image of a scene to be used for the main map and minimap.

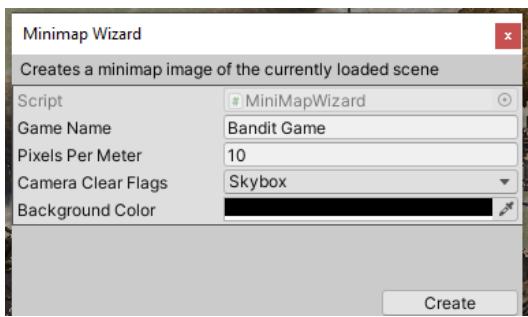


## Accessing the Wizard

The minimap wizard requires that the game scene you want to make the map for is open in the editor. The scene should have a `SceneConfig` object in it to work properly.

The Minimap Wizard can be opened by clicking *Tools* in the menu bar, and selecting *AnyRPG > Wizard > Minimap Wizard*.



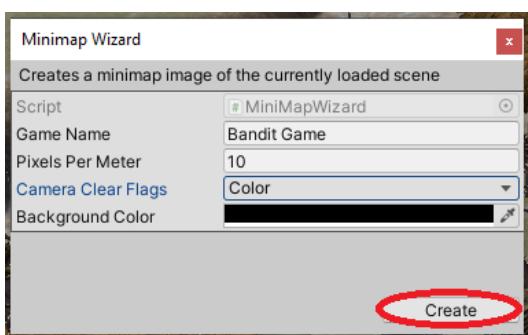


## Settings

| Name               | Description   |
|--------------------|---|
| Game Name          | The name of the game in your Unity project to install the template content in. This will be automatically filled in if you have any scene with the SceneConfig prefab open.                     |
| Pixels Per Meter   | The number of pixels to be rendered in the map image per horizontal meter of the scene.   |
| Camera Clear Flags | <b>Depth</b><br>The image will have a transparent background<br><b>Color</b><br>The image will have a solid color background<br><b>Skybox</b><br>The image will have a skybox in the background |
| Background Color   | If the geometry of the level is not a perfect square, and the Camera Clear Flags are set to color, what color should be used to fill in the empty areas.  |

## Content Created

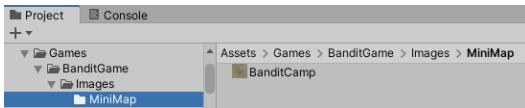
After choosing all the settings, click Create to run the wizard.



The following content will be created.

## Map Image

The map image can be found in the `GameName/Images/MiniMap` folder.



## Next Steps

The minimap image will be loaded automatically when the scene is loaded. There is no additional configuration required.

# Scriptable Objects

## Scriptable Objects Introduction

The AnyRPG Engine makes heavy use of [Unity Scriptable Objects](#) to allow as much configuration of games as possible without requiring changes to the engine code.

## Properties

All scriptable objects used in AnyRPG have a common set of shared properties. To avoid duplication in the documentation, they are all listed here. Individual scriptable object pages will only list additional properties that are not on this page.

| Name          | Description   |
|---------------|---|
| Resource Name | The resource name serves as a database key when scriptable object lookups are performed in the engine. If the <i>Display Name</i> field is empty, it will also be the display text wherever the item appears in-game. |
| Display Name  | The display name field can be used when a different display text than the <i>Resource Name</i> is desired, or when using localization to display text in different languages.   |

|                              |  |
|------------------------------|--|
| Icon                         | Whenever the UI will show an image for a certain scriptable object, this icon will be used.  |
| Icon Background Image        | If an icon is transparent, this image will show behind the icon.<br>This can be useful to reduce effort and save space by re-using background images for multiple icons.   |
| Description                  | Whenever the UI shows a description for a scriptable object, this text will be displayed.  |
| Use Regional Description     | If true, the system will search for a localized regional description for this scriptable object and use its <i>Display Name</i> , <i>Icon</i> , <i>Icon Background Image</i> , and <i>Description</i> instead.     |
| Resource Description Profile | If set, the system will search for a regional description with this name for this scriptable object and use its <i>Display Name</i> , <i>Icon</i> , <i>Icon Background Image</i> , and <i>Description</i> instead. |
| Optional Override            | If true, and one of the two regional override fields is used, the regional override is optional, and will not cause an error if it doesn't exist.  |

## Abilities

Abilities allow the character to perform actions such as attacks, casting spells, crafting, and gathering.

## Properties

All types abilities share a common set of properties, listed in the table below.

| Name                  | Description   |
|-----------------------|---|
| Require Out Of Combat | If true, the character must not be in combat to cast the ability.   |
| Require Stealth       | If true, the character must be in stealth mode to cast the ability.   |
| Weapon Affinity Names | A list of <a href="#">Weapon Skills</a> . The character must have weapon equipped that matches the type of at least one of the skill to cast the ability. |
|                       | A list of <a href="#">PrefabProfiles</a> that contain links to  |

|                                  |  |
|----------------------------------|--|
| Holdable Object List             | <p>GameObjects that will be held while the ability is being cast.</p> <p><b>Holdable Object Name</b></p> <p>The name of a <a href="#">PrefabProfile</a> that contains a link to a GameObject.</p> <p><b>Use Universal Attachment</b></p> <p>If true, attachment points from the <a href="#">PrefabProfile</a> will be ignored, and the universal attachment in the <i>Attachment Name</i> field will be used.</p> <p><b>Attachment Name</b></p> <p>The <i>Node Name</i> field from one of the <i>Attachment Point Nodes</i> in an <a href="#">Attachment Profile</a>.</p> <hr/> <p>An enumeration that defines what sources will be used for holdable objects.</p> <p><b>Both</b></p> <p>Holdable objects defined directly in the ability, and defined in the weapon will be spawned.</p> <p><b>Ability</b></p> <p>Only holdable objects defined in the ability will be spawned</p> <p><b>Weapon</b></p> <p>Only holdable objects defined in the weapon will be spawned.</p> |
| Ability Prefab Source            |  |
| Animator Create Prefabs          | If true, holdable objects will be created in response to animation events, and not created automatically by the ability manager when the cast starts.  |
| Prefab Destroy Delay             | The amount of time, in seconds, that holdable objects should persist past the end of the ability cast before being destroyed.  |
| Animation Clip                   | A link to an animation clip that the character will perform while casting.   |
| Animation Profile Name           | The name of an <a href="#">Animation Profile</a> that contains a list of <i>Cast Clips</i> or <i>Attack Clips</i> (only for <a href="#">Animated Abilities</a> ) that will be performed while the ability is casting.  |
| Use Unit Cast Animations         | If true, the ability will use the <i>Cast Clips</i> or <i>Attack Clips</i> currently active for the character, instead of the clips defined in the ability.  |
| Animation Hit Audio Profile Name | If the animation has <i>Hit</i> events while it is playing, this <a href="#">Audio Profile</a> will be played in response to those events.   |
| Casting Audio Clip               | An audio clip to play while the ability is casting.  |
| Casting Audio Profile Name       | An <a href="#">Audio Profile</a> to play while the ability is casting  |

|                                   |  |
|-----------------------------------|--|
| Required Level                    | The level the character must be to learn the ability   |
| Character Class Requirements      | A list of <a href="#">Character Classes</a> . The character must be one of the classes to learn the ability.   |
| Class Specialization Requirements | A list of <a href="#">Class Specializations</a> . The character must be one of the specializations to learn the ability.   |
| Useable Without Learning          | If true, the ability can be cast without learning it. This is useful for teleport abilities that will be cast on interaction with a <a href="#">Teleport Interactable Option</a> . |
| Auto Add To Bars                  | If true, when learned, the ability will be automatically added to the action bars in the UI if there is room.  |
| Can Simultaneous Cast             | If true, this ability can be cast while another ability cast is in progress.   |
| Can Cast While Moving             | If true, the ability can be cast while the character is in motion.   |
| Ignore Global Cooldown            | This spell can be cast while the global cooldown is active.  |
| Power Resource Name               | The name of a <a href="#">Power Resource</a> that will be spent to cast the ability.   |
| Base Resource Cost                | The base amount of the <a href="#">Power Resource</a> that will be spent to cast the ability. This amount is not scaled by level.  |
| Resource Cost Per Level           | The amount of the <a href="#">Power Resource</a> that will be spent to cast the ability. This amount is multiplied by the character level.   |
| Spend Delay                       | The time delay (in seconds) before the <a href="#">Power Resource</a> is spent when the ability is cast.   |
| Generate Power Resource Name      | The name of a <a href="#">Power Resource</a> that should be gained when the ability hits the target.   |
| Base Resource Gain                | The base amount of the <a href="#">Power Resource</a> that will be gained. This amount is not scaled by level.   |
| Resource Gain Per Level           | The amount of the <a href="#">Power Resource</a> that will be gained. This amount is multiplied by the character level.  |
| Use Speed Multipliers             | If true, after the cast time is calculated, it will be affected by the <i>Speed</i> secondary stat.  |

|                               |   |
|-------------------------------|---|
| Use Animation Cast Time       | If true, the cast time is based on the length of the animation played while casting.  |
| Ability Casting Time          | If <i>Use Animation Cast Time</i> is false, this value will be used for the cast time.  |
| Ability Cool Down             | The cooldown time, in seconds, before the ability can be cast again.  |
| Cool Down On Cast             | If true, the cooldown will be initiated at the start of the cast, instead of the end of the cast, which is the default.                         |
| Use Ability Effect Targetting | If true, the <i>Target Options</i> of the ability will be overridden by the <i>Target Options</i> of the first <a href="#">Ability Effect</a> . |
| Target Options                | A list of <a href="#">Target Options</a> .  |
| Inline Ability Effects        | A list of <a href="#">Ability Effects</a> , defined directly, to cast when the ability casting is complete.                                     |
| Ability Effect Names          | A list of <a href="#">Ability Effects</a> to cast when the ability casting is complete.   |
| Tick Rate                     | This is the number of seconds between ticks, where <a href="#">Channeled Ability Effects</a> will be cast while the ability is casting.         |
| Inline Channeling Effects     | A list of <a href="#">Channeled Ability Effects</a> , defined directly to cast while channeling the ability.                                    |
| Channeled Ability Effectnames | A list of names of <a href="#">Channeled Ability Effects</a> to cast while channeling the ability.  |

## Target Options

Target options control which targets will be considered valid targets for the purpose of determining if the ability can be cast on the target.

| Name                  | Description  |
|-----------------------|--|
| Require Target        | If true, the character must have a target selected.      |
| Require Line Of Sight | The caster requires a clear line of sight to the target. |
| Require Live Target   | The target must be alive.                                |
| Require Dead Target   | The target must be dead.                                 |
| Can Cast On Self      | The ability can be cast on the caster.                   |

|                        |   |
|------------------------|---|
| Can Cast On Others     | The ability can be cast on targets other than the caster.   |
| Can Cast On Enemy      | The ability can be cast on targets the caster has a hostile <a href="#">Faction</a> relationship with.          |
| Can Cast On Neutral    | The ability can be cast on targets the caster has a neutral <a href="#">Faction</a> relationship with.          |
| Can Cast On Friendly   | The ability can be cast on targets the caster has a friendly <a href="#">Faction</a> relationship with.         |
| Auto Self Cast         | If true, and the caster does not have a target, the ability will automatically choose the caster as the target. |
| Unit Type Restrictions | A list of valid <a href="#">Unit Types</a> the ability can be cast on   |
| Use Melee Range        | If true, the ability can only be cast on a target when that target is in the casters hit box.                   |
| Max Range              | If <i>Use Melee Range</i> is false, the ability will have a maximum range of this value.                        |
| Require Facing Target  | If true, the target must be in front of the caster.   |
| Max Angle              | The maximum angle to the left or right the target can be located at.  |
| Require Behind Target  | If true, the caster must be behind the target.  |
| Require Ground Target  | If true, this ability will be cast on the ground, and not on a target.  |
| Ground Target Color    | The color that will be used to tint the ground target casting circle.   |
| Ground Target Radius   | The radius that will be used for displaying the ground target casting circle.                                   |

## Next steps

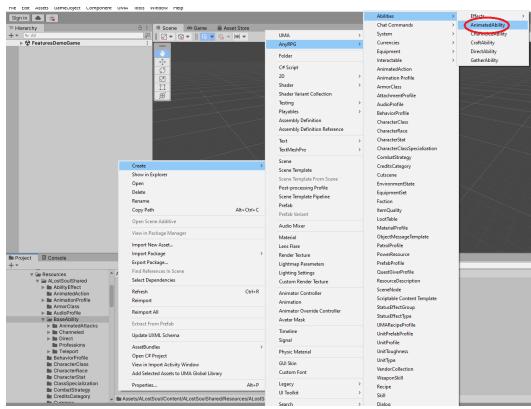
- Add an ability to the *Capabilities* of a [Character Class](#).
- Add an ability to the *Capabilities* of a [Class Specialization](#).
- Add an ability to the *Capabilities* of a [Unit Type](#).
- Add an ability to the *Capabilities* of a [Faction](#).
- Add an ability to the *Capabilities* of a [Unit Profile](#).

# Animated Ability

An animated ability is an attack-type ability, where the damage to the target should occur in the middle of the animation, based on animation events.

## Creation

To create an animated ability, find (or create) the *GameName/Resources/GameName/BaseAbility* folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Abilities > AnimatedAbility*.



## Properties

| Name                       | Description  |
|----------------------------|--|
| Is Auto Attack             | If true, this ability will be used as an auto-attack, and automatically cast on an enemy target when in combat and in range.   |
| Use Unit Attack Animations | If true, the <i>Attack Clips</i> will be used from the currently active <i>Animations</i> for the character, instead of any animation clips defined directly in the ability. |
| Use Auto Attack Animations | This option is only valid if this is not an auto-attack ability. If true, it will use the current auto-attack animations so it looks good with any weapon.                   |
|                            | If true, the current Weapon default hit sound will b   |

## Use Weapon Hit Sound

played when the attack hits an enemy.

## Next steps

- Add an animated ability to the [Capabilities](#) of a [Character Class](#).
- Add an animated ability to the [Capabilities](#) of a [Class Specialization](#).
- Add an animated ability to the [Capabilities](#) of a [Unit Type](#).
- Add an animated ability to the [Capabilities](#) of a [Faction](#).
- Add an animated ability to the [Capabilities](#) of a [Unit Profile](#).

## Channeled Ability

Channeled abilities are deprecated, and should not be used. All properties of channeled abilities have been moved to Direct Abilities and the class will be removed in the future.



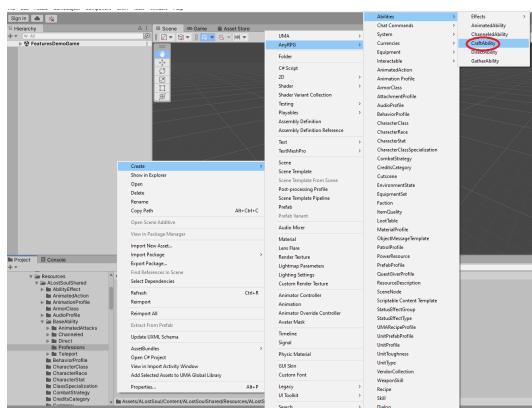
Deprecated, do not use.

## Craft Ability

Craft abilities are special types of abilities that do not require ability effects and will automatically craft the current item in the crafting queue when the cast is complete.

## Creation

To create a craft ability, find (or create) the `GameName/Resources/GameName/BaseAbility` folder (or any subfolder) in the project tab and right click. Choose [Create > AnyRPG > Abilities > CraftAbility](#).



# Properties

Craft abilities do no contain any properties other than the default properties shared by all [Abilities](#).

## Next steps

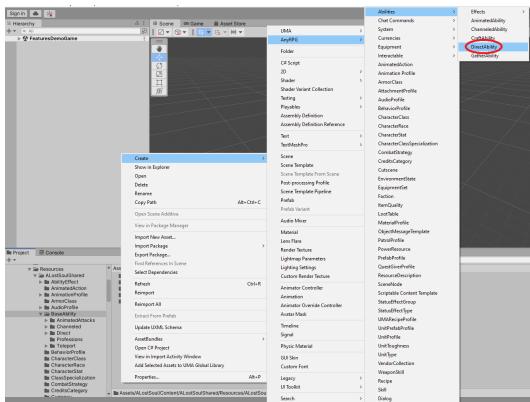
- Add a craft ability to the *Capabilities* of a [Character Class](#).
- Add a craft ability to the *Capabilities* of a [Class Specialization](#).
- Add a craft ability to the *Capabilities* of a [Unit Type](#).
- Add a craft ability to the *Capabilities* of a [Faction](#).
- Add a craft ability to the *Capabilities* of a [Unit Profile](#).
- Add a craft ability to a [Skill](#) so the player learns it when they learn the [Skill](#).
- Add a craft ability to a [Recipe](#) to require knowing the ability to craft the [Item](#).

## Direct Ability

A direct ability is the default ability type, and should be used mainly for spell-type abilities.

## Creation

To create a direct ability, find (or create) the *GameName/Resources/GameName/BaseAbility* folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Abilities > DirectAbility*.



## Properties

Direct Abilities do no contain any properties other than the default properties shared by all [Abilities](#).

## Next steps

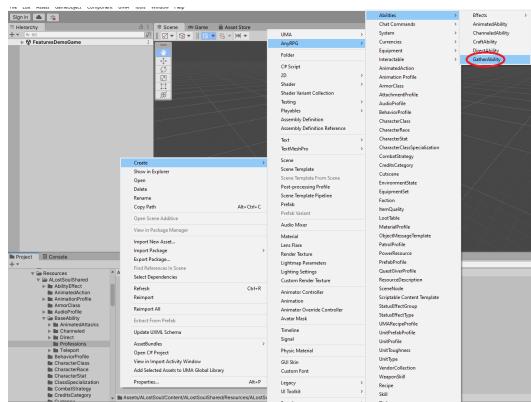
- Add a direct ability to the *Capabilities* of a [Character Class](#).
- Add a direct ability to the *Capabilities* of a [Class Specialization](#).
- Add a direct ability to the *Capabilities* of a [Unit Type](#).
- Add a direct ability to the *Capabilities* of a [Faction](#).
- Add a direct ability to the *Capabilities* of a [Unit Profile](#).

## Gather Ability

Gather abilities are special types of abilities that do not require ability effects and will automatically gather from the current gathering node when the cast is complete.

## Creation

To create a gather ability, find (or create) the *GameName/Resources/GameName/BaseAbility* folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Abilities > GatherAbility*.



## Properties

Gather abilities do no contain any properties other than the default properties shared by all [Abilities](#).

## Next steps

- Add a gather ability to the *Capabilities* of a [Character Class](#).
- Add a gather ability to the *Capabilities* of a [Class Specialization](#).
-

- Add a gather ability to the [Capabilities](#) of a [Unit Type](#).
- Add a gather ability to the [Capabilities](#) of a [Unit Profile](#).
- Add a gather ability to a [Gathering Node Config](#) to allow the ability to be used to gather from it.
- Add a gather ability to a [Skill](#) so the player learns it when they learn the [Skill](#).

## Ability Effects

Ability effects are the components (building blocks) responsible for the behavior of all spells or attacks and can be combined together to create unique and powerful abilities.

## Properties

All ability effects share a common set of properties, listed in the table below.

| Name                       | Description  |
|----------------------------|--|
| Target Options             | Ability effect <a href="#">Target Options</a> .  |
| Chance To Cast             | The percentage chance that this ability effect will be cast when called.   |
| Effect Material Name       | The name of a <a href="#">Material Profile</a> containing a material to use to replace the material of the target.   |
| Material Change Duration   | The number of seconds the target material should be changed for, before changing the material back to the original one.  |
| On Hit Audio Profile Names | A list of <a href="#">Audio Profiles</a> containing audio clips to play when the ability effect hits the target.   |
| Random Audio Profiles      | If true, a random <a href="#">Audio Profile</a> from the <a href="#">On Hit Audio Profile Names</a> list will be played, instead of all of them.   |
| Hit Ability Effect Names   | A list of other <a href="#">Ability Effects</a> to cast when the current ability effect hits.  |
| Input Multiplier           | All ability effects pass on information about how much damage or healing they did to the next ability effect they cast. This number will be multiplied by those amounts before adding them to the amounts of the current ability effect. |
| Threat Multiplier          | The basic threat any ability effect does will be multiplied by this amount.  |

## Length Effect Properties

[Length Effects](#), which are ability effects that have a duration, have the following additional properties.

| Name                  | Description   |
|-----------------------|---|
| Ability Prefab Source | <p>An enumeration that defines what sources will be used for holdable objects (visual effects).</p> <p><b>Both</b><br/>Holdable objects defined directly in the ability, and defined in the weapon will be spawned.</p> <p><b>Ability</b><br/>Only holdable objects defined in the ability will be spawned</p> <p><b>Weapon</b><br/>Only holdable objects defined in the weapon will be spawned.</p>  |
| Random Prefabs        | <p>If true, a random prefab will be selected from the <i>Ability Prefab Source</i> instead of spawning all of them.</p>   |
| Ability Object List   | <p>A list of <a href="#">PrefabProfiles</a> that contain links to GameObjects that will be spawned when the ability effect hits.</p> <p><b>Holdable Object Name</b><br/>The name of a <a href="#">PrefabProfile</a> that contains a link to a GameObject.</p> <p><b>Use Universal Attachment</b><br/>If true, attachment points from the <a href="#">PrefabProfile</a> will be ignored, and the universal attachment in the <i>Attachment Name</i> field will be used.</p> <p><b>Attachment Name</b><br/>The <i>Node Name</i> field from one of the <i>Attachment Point Nodes</i> in an <a href="#">Attachment Profile</a>.</p> |
|                       | <p>An enumeration of options that define where the visual effects for this ability effect should spawn.</p> <p><b>None</b><br/>No prefabs should be spawned.</p> <p><b>Caster</b><br/>The prefabs should be spawned with the caster as their parent.</p> <p><b>Target</b><br/>The prefabs should be spawned with the target as their parent.</p>  |

|                               |   |
|-------------------------------|---|
| Prefab Spawn Location         | <p><b>Ground Target</b></p> <p>The prefabs should be spawned at the location of the ground target of the original ability, if one was used.</p> <p><b>Original Target</b></p> <p>The prefabs should be spawned with the original target of the ability as its parent.</p> <p><b>Target Point</b></p> <p>The prefab should be spawned at the location of the current target, with no parent.</p> <p><b>Caster Point</b></p> <p>The prefab should be spawned at the location of the caster, with no parent.</p> |
| Prefab Destroy Delay          | The amount of time, in seconds, that visual effect prefabs should persist past the end of the ability effect before being destroyed.  |
| Destroy On End Cast           | If true, the visual effect prefabs will be destroyed when casting ends, regardless of prefab lifetime.  |
| Tick Rate                     | The number of seconds that should pass between ticks.   |
| Cast Zero Tick                | If true, a tick will happen immediately at the start of the ability effect.   |
| Tick Ability Effect Names     | A list of ability effects to cast on each tick.   |
| On Tick Audio Profile Names   | a list of <a href="#">Audio Profiles</a> containing audio clips which will be played on each tick.  |
| Random Tick Audio Profiles    | If true, a random <a href="#">Audio Profile</a> from the <i>On Tick Audio Profile Names</i> list will be played, instead of all of them.  |
| Complete Ability Effect Names | A list of ability effects to cast when the duration of the current ability effect is complete.  |

## Fixed Length Effect Properties

In addition to all the properties of its parent class, [Length Effect](#), fixed length effects have the following additional properties.

| Name                    | Description   |
|-------------------------|---|
| Default Prefab Lifetime | The length of time, in seconds, that any visual effect prefab should last before being destroyed. |

## Amount Effect Properties

In addition to all the properties of its parent class, [Instant Effect](#), amount effects have the following additional properties.

| Name                  | Description   |
|-----------------------|---|
| Allow Critical Strike | If true, the amount of the effect can be increased to a critical amount, determined by the casters critical strike chance.  |
| Resource Amounts      | <p>A list of resources to affect, and the amounts of the effects.</p> <p><b>Resource Name</b><br/>The name of a <a href="#">Power Resource</a> to affect.</p> <p><b>Input Remap</b><br/>By default, any inputs that match the <i>Resource Name</i> will be added to the current amount. If this field is not blank, the name of the <a href="#">Power Resource</a> in this field will be used for the input instead.</p> <p><b>Add Power</b><br/>If true, the appropriate power (spell / physical) will be added to this amount.</p> <p><b>Min Amount</b><br/>If the amount is lower than this value, it will be raised to this value.</p> <p><b>Base Amount</b><br/>A base amount of the effect, not scaled by level.</p> <p><b>Amount Per Level</b><br/>An amount that will be multiplied by the caster level.</p> <p><b>Max Amount</b><br/>If the amount is higher than this value, it will be lowered to this value.</p> <p><b>Ignore Cast Time</b><br/>By default, all amounts of the first effect to land are considered to be per second (DPS / HPS) and are multiplied by animation or cast time. If this value is set to true, the amount will not be normalized to the cast time.</p> |
| Ignore Accuracy       | If true, the effect will always hit, regardless of current accuracy.  |

## Target Options

Target options control which targets will be considered valid targets for the purpose of determining if the ability can be cast on the target.

| Name                          | Description   |
|-------------------------------|---|
| Require Target                | If true, the character must have a target selected.   |
| Require Line Of Sight         | The caster requires a clear line of sight to the target.  |
| Require Live Target           | The target must be alive.   |
| Require Dead Target           | The target must be dead.  |
| Can Cast On Self              | The ability can be cast on the caster.  |
| Can Cast On Others            | The ability can be cast on targets other than the caster.   |
| Can Cast On Enemy             | The ability can be cast on targets the caster has a hostile <a href="#">Fraction</a> relationship with.   |
| Can Cast On Neutral           | The ability can be cast on targets the caster has a neutral <a href="#">Fraction</a> relationship with.   |
| Can Cast On Friendly          | The ability can be cast on targets the caster has a friendly <a href="#">Fraction</a> relationship with.  |
| Auto Self Cast                | If true, and the caster does not have a target, the ability effect will automatically choose the caster as the target.  |
| Unit Type Restrictions        | A list of valid <a href="#">Unit Types</a> the ability effect can be cast on.   |
| Use Melee Range               | If true, the ability effect can only be cast on a target when that target is in the casters hit box.  |
| Max Range                     | If <i>Use Melee Range</i> is false, the ability effect will have a maximum range of this value.   |
| Line Of Sight Source Location | <p>When calculating line of sight, the following origin location will be used.</p> <p><b>Caster</b></p> <p>The line of sight will be calculated from the caster, to the current target.</p> <p><b>Ground Target</b></p> <p>The line of sight will be calculated from the original ground target, to the current target.</p> |

## Target Range Source Location

## Original Target

The line of sight will be calculated from the original target, to the current target.

When calculating the range to the target for the purpose of determining maximum range, the following source location will be used.

## Caster

The target range will be calculated from the castel to the current target.

## Ground Target

The target range will be calculated from the origin ground target, to the current target.

## Original Target

The target range will be calculated from the origin target, to the current target.

## Next steps

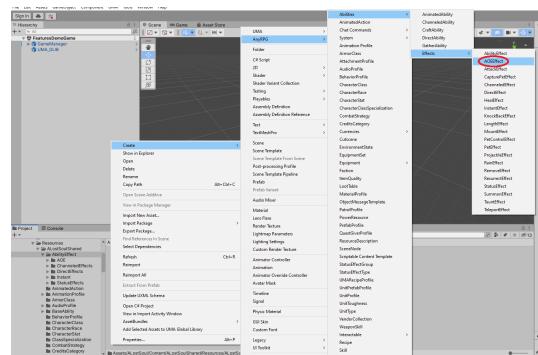
- Add an ability effect to an Ability.
  - Add an ability effect to another ability effect to chain them together.

## AOE Effect

An **aoe effect** is a type of intermediate effect that is responsible for choosing multiple valid targets and casting any additional ability effects on them.

# Creation

To create an aoe effect, find (or create) the `GameName/Resources/GameName/AbilityEffect` folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Abilities > Effects > AOEEffect*.



## Properties

In addition to all the properties of its parent class, [Fixed Length Effect](#), aoe effects have a single property, *AOE Properties*, with the following fields.

| Name                   | Description   |
|------------------------|---|
| Aoe Radius             | The radius from the center of the target location which will be used to find valid targets.   |
| Use Radius             | If true, the target finding algorithm will use a sphere with a radius to find targets.  |
| Use Extents            | If true, the target finding algorithm will use extents to find targets.   |
| Aoe Center             | A Vector3 offset from the default center to use for finding targets.  |
| Aoe Extents            | If <i>Use Extents</i> is true, then these extents will be used to create the bounding box to find valid targets within it.                      |
| Max Targets            | The maximum number of valid targets that can be returned. 0 is unlimited.   |
| Prefer Closest Targets | If true, and <i>Max Targets</i> is not unlimited, the target will be sorted by distance from the center, and the closest ones will be returned. |
| Inter Target Delay     | Set this value to a positive non-zero number if you want a delay between the time each target has additional effects cast on them.              |

## Next steps

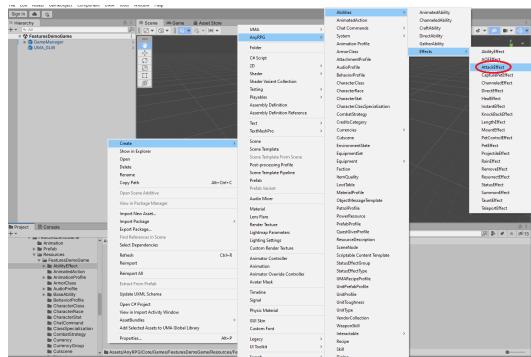
- Add an aoe effect to an [Ability](#).
- Add an aoe effect to another [Ability Effect](#) to chain them together.

## Attack Effect

An attack effect does damage to a target, draining one or more power resources.

## Creation

To create an attack effect, find (or create) the `GameName/Resources/GameName/AbilityEffect` folder (or any subfolder) in the project tab and right click. Choose `Create > AnyRPG > Abilities > Effects > AttackEffect`.



## Properties

In addition to all the properties of its parent class, [Amount Effect](#), attack effects have the following properties.

| Name                 | Description  |
|----------------------|--|
| Weapon Attack        | If true, this attack will be considered to have been landed by the equipped <a href="#">Weapon</a> . It will play <a href="#">Weapon</a> sounds, as well as trigger <a href="#">Weapon</a> effect and active <a href="#">Status Effect</a> on-hit effects. |
| Damage Type          | An enumeration of damage types.<br><b>Physical</b><br><a href="#">Weapon</a> damage and physical power will be added to the damage amounts.<br><b>Ability</b><br>Spell power will be added to the damage amounts   |
| Ignore Armor Percent | If the <i>Damage Type</i> is <i>Physical</i> , the percentage of the target armor to ignore when dealing damage.   |

## Next steps

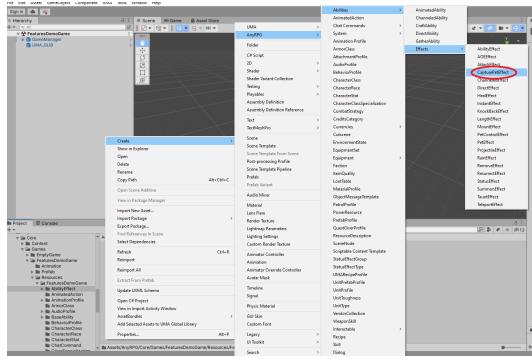
- Add an attack effect to an [Ability](#).
- Add an attack effect to another [Ability Effect](#) to chain them together.

## Capture Pet Effect

A capture pet effect captures a pet, allowing the caster to call it to follow them and aid them in combat at any time.

## Creation

To create a capture pet effect, find (or create) the *GameName/Resources/GameName/AbilityEffect* folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Abilities > Effects > CapturePetEffect*.



## Properties

In addition to all the properties of its parent class, [Fixed Length Effect](#), capture pet effects have the following properties.

| Name                   | Description   |
|------------------------|---|
| Unit Type Restrictions | A list of <a href="#">Unit Types</a> that the ability can be cast on. |

## Next steps

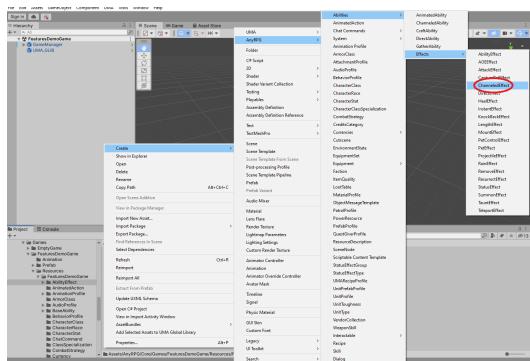
- Add a capture pet effect to an [Ability](#).
- Add a capture pet effect to another [Ability Effect](#) to chain them together.

## Channeled Effect

A channeled effect is a type of intermediate effect that is responsible for delaying the cast of subsequent effects.

## Creation

To create a channeled effect, find (or create) the `GameName/Resources/GameName/AbilityEffect` folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Abilities > Effects > ChanneledEffect*.



## Properties

In addition to all the properties of its parent class, [Fixed Length Effect](#), channeled effects have the following properties.

| Name         | Description  |
|--------------|--|
| Effect Delay | The delay, in seconds, that should pass after spawning the visual effects, before any subsequent <a href="#">Ability Effects</a> are cast. |

## Next steps

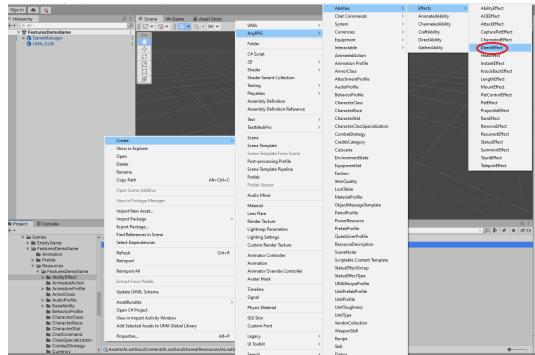
- Add a channeled effect to an [Ability](#).
- Add a channeled effect to another [Ability Effect](#) to chain them together.

## Direct Effect

A direct effect is a type of intermediate effect that can be used to chain multiple effects together.

## Creation

To create a direct effect, find (or create) the `GameName/Resources/GameName/AbilityEffect` folder (or any subfolder) in the project tab and right click. Choose `Create > AnyRPG > Abilities > Effects > DirectEffect`.



## Properties

Direct Effects do not have any properties other than the properties provided by their parent class, [Fixed Length Effect](#).

## Usage

Direct Effects will cast Tick Ability Effects, and Complete Ability Effects, but will never cast Hit Ability Effects. Hit Ability Effects will be cast by [Projectile Effects](#), [AOE Effects](#), and [Channeled Effects](#).

## Next steps

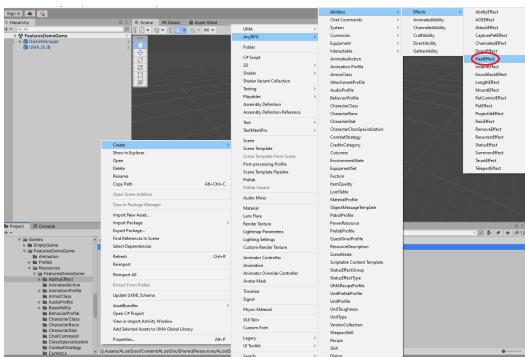
- Add a direct effect to an [Ability](#).
- Add a direct effect to another [Ability Effect](#) to chain them together.

## Heal Effect

A heal effect heals a target, restoring one or more power resources.

## Creation

To create a heal effect, find (or create) the *GameName/Resources/GameName/AbilityEffect* folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Abilities > Effects > HealEffect*.



## Properties

Heal Effects do not have any properties other than the properties of its parent class, [Amount Effect](#).

## Next steps

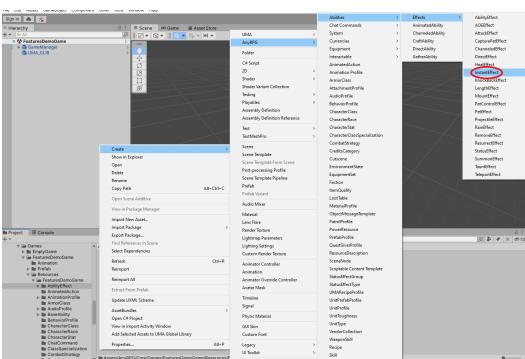
- Add a heal effect to an [Ability](#).
- Add a heal effect to another [Ability Effect](#) to chain them together.

## Instant Effect

An instant effect is a type of intermediate effect that casts other effects. It is most useful for spawning visual effects before casting other effects.

## Creation

To create an instant effect, find (or create) the *GameName/Resources/GameName/AbilityEffect* folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Abilities > Effects > InstantEffect*.



# Properties

Instant Effects do not have any properties other than the properties of its parent class, [Fixed Length Effect](#).

## Next steps

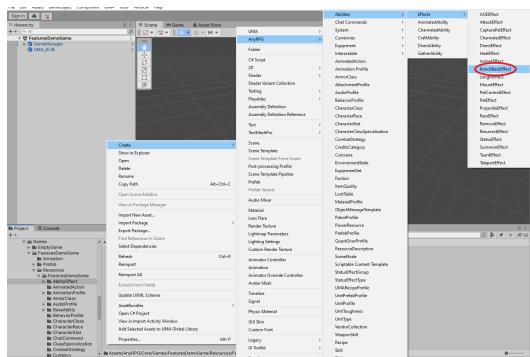
- Add an instant effect to an [Ability](#).
- Add an instant effect to another [Ability Effect](#) to chain them together.

## Knock Back Effect

A knock back effect knocks the character away from the caster, sending them flying backwards in the air.

## Creation

To create a knock back effect, find (or create) the *GameName/Resources/GameName/AbilityEffect* folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Abilities > Effects > KnockBackEffect*.



## Properties

In addition to all the properties of its parent class, [Fixed Length Effect](#), knock back effects have the following properties.

| Name           | Description   |
|----------------|---|
| Knockback Type | An enumeration of knockback types.<br><b>Knockback</b><br>The knockback direction will be calculated from the caster to the target. |

|                     |  |
|---------------------|--|
| Knock Back Velocity | The knockback direction will be calculated from a point.<br>The speed the character should be knocked back at. |
| Knock Back Angle    | The angle the character should be knocked upwards at.  |
| Explosion Radius    | The radius from the center point point of the explosion where targets will be affected.                        |
| Explosion Force     | The amount of force to apply to targets of the explosion.  |
| Upward Modifier     | The amount of upward force to apply to targets of the explosion.   |
| Explosion Mask      | The layers to hit when performing the explosion.   |

## Next steps

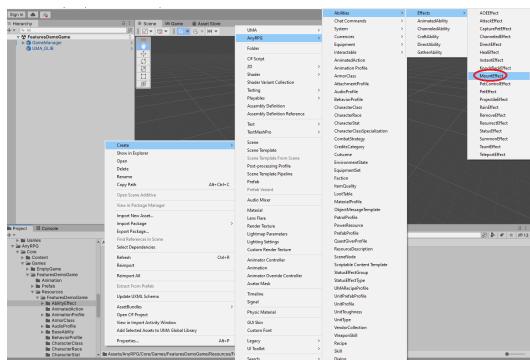
- Add a knock back effect to an [Ability](#).
- Add a knock back effect to another [Ability Effect](#) to chain them together.

## Mount Effect

A mount effect allows a character to summon and ride a mount.

## Creation

To create a mount effect, find (or create) the `GameName/Resources/GameName/AbilityEffect` folder (or any subfolder) in the project tab and right click. Choose `Create > AnyRPG > Abilities > Effects > MountEffect`.



## Explosion

The knockback direction will be calculated from a point.

The speed the character should be knocked back at.

The angle the character should be knocked upwards at.

The radius from the center point point of the explosion where targets will be affected.

The amount of force to apply to targets of the explosion.

The amount of upward force to apply to targets of the explosion.

The layers to hit when performing the explosion.

# Properties

In addition to all the properties of its parent class, [Status Effect](#), mount effects have the following properties.

| Name              | Description  |
|-------------------|--|
| Unit Profile Name | A <a href="#">Unit Profile</a> that will serve as the mount. |

## Next steps

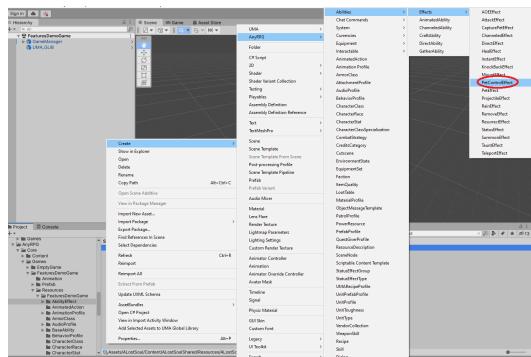
- Add a mount effect to an [Ability](#).
- Add a mount effect to another [Ability Effect](#) to chain them together.

## Pet Control Effect

A pet control effect is a special type of status effect that ensures that a character will automatically summon a pet whenever it does not have an active pet.

## Creation

To create a pet control effect, find (or create) the *GameName/Resources/GameName/AbilityEffect* folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Abilities > Effects > PetControlEffect*.



# Properties

In addition to all the properties of its parent class, [Status Effect](#), pet control effects have the following properties.

| Name             | Description   |
|------------------|---|
| Pet Effect Names | A list of <a href="#">Pet Effects</a> that summon pets. |

## Next steps

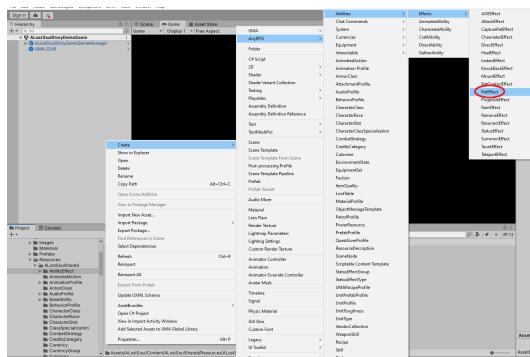
- Add a pet control effect to an [Ability](#).
- Add a pet control effect to another [Ability Effect](#) to chain them together.

## Pet Effect

A pet effect is a special type of status effect that includes an additional check to ensure the target is a capturable pet before putting it under the casters control.

## Creation

To create a pet effect, find (or create) the `GameName/Resources/GameName/AbilityEffect` folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Abilities > Effects > PetEffect*.



## Properties

Pet effects do not have any properties other than the properties of its parent class, [Status Effect](#).

## Next steps

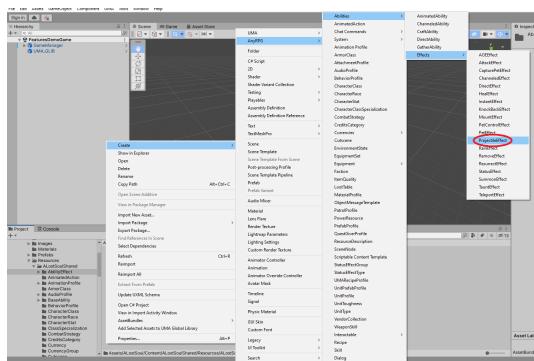
- Add a pet effect to an [Ability](#).
- Add a pet effect to another [Ability Effect](#) to chain them together.

# Projectile Effect

A projectile effect spawns a projectile which moves toward a target, and casts subsequent effects when it hits the target.

## Creation

To create a projectile effect, find (or create) the *GameName/Resources/GameName/AbilityEffect* folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Abilities > Effects > ProjectileEffect*.



## Properties

In addition to all the properties of its parent class, [Fixed Length Effect](#), projectile effects have the following properties.

| Name                         | Description   |
|------------------------------|---|
| Projectile Speed             | The speed the projectile will travel while moving toward its target.  |
| Flight Audio Profile Names   | A list of <a href="#">Audio Profiles</a> containing audio clips to play while the projectile is traveling.                              |
| Random Flight Audio Profiles | If true, a random <a href="#">Audio Profile</a> from the <i>Flight Audio Profile Names</i> list will be played, instead of all of them. |

## Next steps

- Add a projectile effect to an [Ability](#).

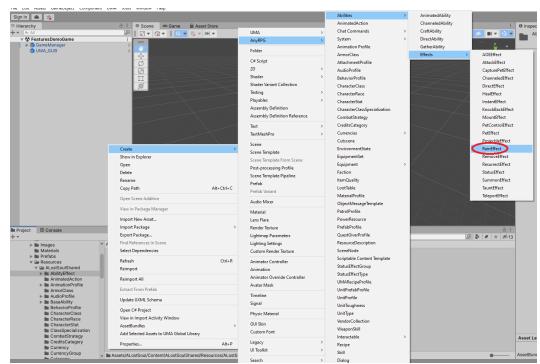
- Add a projectile effect to another [Ability Effect](#) to chain them together.

## Rain Effect

A rain effect is a special type of aoe effect that targets subsequent ability effects toward the ground.

## Creation

To create a rain effect, find (or create) the `GameName/Resources/GameName/AbilityEffect` folder (or any subfolder) in the project tab and right click. Choose `Create > AnyRPG > Abilities > Effects > RainEffect`.



## Properties

Rain Effects do not have any properties other than the properties of its parent class, [AOE Effect](#).

## Next steps

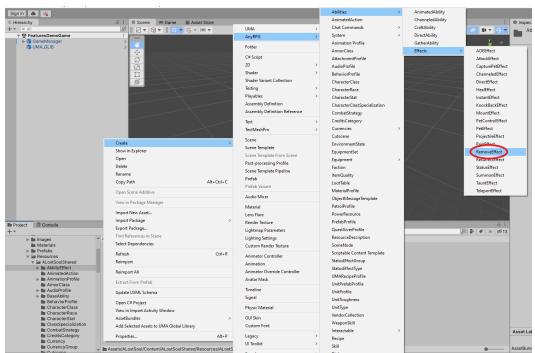
- Add a rain effect to an [Ability](#).
- Add a rain effect to another [Ability Effect](#) to chain them together.

## Remove Effect

A remove effect removes a status effect from the target.

## Creation

To create a remove effect, find (or create) the `GameName/Resources/GameName/AbilityEffect` folder (or any subfolder) in the project tab and right click. Choose `Create > AnyRPG > Abilities > Effects > RemoveEffect`.



## Properties

In addition to all the properties of its parent class, [Fixed Length Effect](#), remove effects have the following properties.

| Name              | Description  |
|-------------------|--|
| Max Clear Effects | The maximum amount of <a href="#">Status Effects</a> to remove 0 is unlimited. |
| Effect Type Names | A list of <a href="#">Status Effect Types</a> that this effect can remove.     |

## Next steps

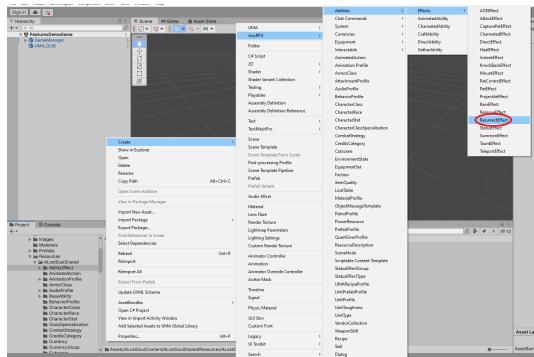
- Add a remove effect to an [Ability](#).
- Add a remove effect to another [Ability Effect](#) to chain them together.

## Resurrect Effect

A resurrect effect brings a dead character back to life.

## Creation

To create a resurrect effect, find (or create) the *GameName/Resources/GameName/AbilityEffect* folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Abilities > Effects > ResurrectEffect*.



## Properties

Resurrect Effects do not have any properties other than the properties of its parent class, [Fixed Length Effect](#).

## Next steps

- Add a resurrect effect to an [Ability](#).
- Add a resurrect effect to another [Ability Effect](#) to chain them together.

## Status Effect

A status effect is an effect that is applied to a character for a certain time period (or indefinitely) and can be beneficial or harmful by restricting or enhancing their capabilities and powers.

## Creation

To create a status effect, find (or create) the *GameName/Resources/GameName/AbilityEffect* folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Abilities > Effects > StatusEffect*.

## Properties

In addition to all the properties of its parent class, [Length Effect](#), status effects have the following properties.

| Name                     | Description   |
|--------------------------|---|
| Status Effect Alignment  | An enumeration of values that determine if the effect is considered beneficial or harmful.<br><b>None</b><br>The effect has no alignment, and can be removed at will by the player.<br><b>Beneficial</b><br>The effect is considered beneficial, and can be removed at will by the player.<br><b>Harmful</b><br>The effect is considered harmful, and can only be removed by an appropriate type of <a href="#">Remove Effect</a> |
| Status Effect Type Name  | The <a href="#">Status Effect Type</a> , for the purposes of determining if a <a href="#">Remove Effect</a> can be used on it.  |
| Status Effect Group Name | The <a href="#">Status Effect Group</a> , for the purposes of limiting how many effects of the same group can be active on a character at the same time.  |
| Class Trait              | If true, the effect is considered to be inherent, cannot be removed, and will not show on the UI status effect bars.  |
| Required Level           | If <i>Class Trait</i> is true, the character must be this level or higher for the effect to be applied.   |
| Scene Names              | A list of the names of <a href="#">Scenes</a> that this effect can be active in. If the character moves to another <a href="#">Scene</a> , the effect will be removed.  |
| Require Out Of Combat    | If true, the effect can only be active when the character is out of combat, and will be removed upon entering combat.   |
| Limited Duration         | If true, the effect will have a limited duration, and will be removed when the duration has passed.   |
| Duration                 | If <i>Limited Duration</i> is true, the effect will last for this many seconds.   |
|                          | The maximum number of stacks of this effect that  |

|                            |   |
|----------------------------|---|
| Max Stacks                 | can be on a character at once. When more than one stack is active, numerical properties are added together.   |
| Stat Buff Type Names       | The names of <a href="#">Character Stats</a> that will be added to and multiplied by the values in the <i>Stat Amount</i> and <i>Stat Multiplier</i> fields.  |
| Stat Amount                | Any <a href="#">Character Stats</a> in the <i>Stat Buff Type Names</i> field will have their value increased by this amount.  |
| Stat Multiplier            | Any <a href="#">Character Stats</a> in the <i>Stat Buff Type Names</i> field will have their value multiplied by this amount.   |
| Secondary Stat Buff Types  | The names of Secondary Stats that will be added and multiplied by the values in the <i>Secondary Stat Amount</i> and <i>Secondary Stat Multiplier</i> fields.   |
| Secondary Stat Amount      | Any Secondary Stats in the <i>Secondary Stat Buff Types</i> field will have their value increased by this amount.   |
| Secondary Stat Multiplier  | Any Secondary Stats in the <i>Secondary Stat Buff Types</i> field will have their value multiplied by this amount.  |
| Outgoing Damage Multiplier | All damage the character does will be multiplied by this amount.  |
| Incoming Damage Multiplier | All damage the character takes will be multiplied by this amount.   |
| Faction Modifiers          | <p>A list of modified <a href="#">Faction</a> relationships.</p> <p><b>Faction Name</b><br/>The name of the <a href="#">Faction</a> which will have a modified relationship.</p> <p><b>Disposition</b><br/>The amount of relationship value to add (or remove) for the <a href="#">Faction</a>.</p> |
| Stealth                    | If true, the character will appear partially invisible, and enemies will not be able to see them or agro them if they get within the normal agro range. Stealth is removed upon entering combat.  |
| Can Fly                    | If true, the character can Fly while the effect is active.  |
| Can Glide                  | If true, the character can Glide while the effect is active.  |
| Disable Animator           | If true, the character will be frozen and not animated while the effect is active.  |

|                                 |  |
|---------------------------------|--|
| Stun                            | If true, the character will be stunned and unable to move, attack, or cast abilities while the effect is active.   |
| Levitate                        | If true, the character will be levitated above the ground, and unable to move, attack, or cast abilities while the effect is active.   |
| Immune Disable Animator         | If true, the character will be immune to any effect that has <i>Disable Animator</i> set to true while the effect is active.   |
| Immune Stun                     | If true, the character will be immune to any effect that has <i>Stun</i> set to true while the effect is active.   |
| Immune Levitate                 | If true, the character will be immune to any effect that has <i>Levitate</i> set to true while the effect is active.   |
| Control Target                  | If true, the character will become a temporary pet of the caster while the effect is active.   |
| Reflect Ability Effect Names    | A list of <a href="#">Ability Effects</a> that will be automatically cast on any character that lands an <a href="#">Attack Effect</a> on this character while the effect is active. |
| Weapon Hit Ability Effect Names | A list of <a href="#">Ability Effects</a> that will be automatically cast on any enemy when a weapon hit lands.  |
| Save Effect                     | If true, the effect will be saved when the game is saved. It can be useful to disable this for effects you may want reset when loading a saved game, such as stealth.                |

## Next steps

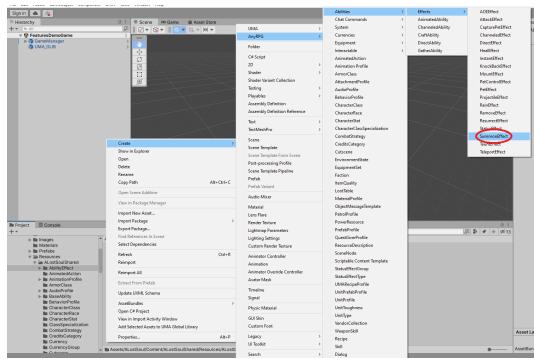
- Add a status effect to an [Ability](#).
- Add a status effect to another [Ability Effect](#) to chain them together.
- Add an [Attack Effect](#) to the *Tick Ability Effect Names* field to make an effect into a DOT (Damage Over Time) effect.
- Add a [Heal Effect](#) to the *Tick Ability Effect Names* field to make an effect into a HOT (Heal Over Time) effect.

## Summon Effect

A summon effect summons a character to act as a pet.

## Creation

To create a summon effect, find (or create) the *GameName/Resources/GameName/AbilityEffect* folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Abilities > Effects > SummonEffect*.



## Properties

In addition to all the properties of its parent class, [Fixed Length Effect](#), summon effects have the following properties.

| Name              | Description  |
|-------------------|--|
| Unit Profile Name | The <a href="#">Unit Profile</a> of the character to be summoned as a pet. |

## Next steps

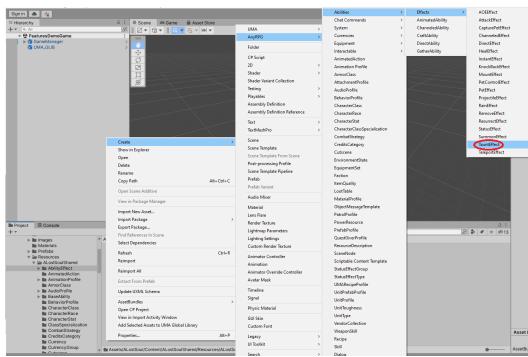
- Add a summon effect to an [Ability](#).
- Add a summon effect to another [Ability Effect](#) to chain them together.

## Taunt Effect

A taunt effect forces an AI enemy to target the caster for a specified amount of time.

## Creation

To create a taunt effect, find (or create) the `GameName/Resources/GameName/AbilityEffect` folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Abilities > Effects > TauntEffect*.



## Properties

Taunt Effects do not have any properties other than the properties of its parent class, [Status Effect](#).

## Next steps

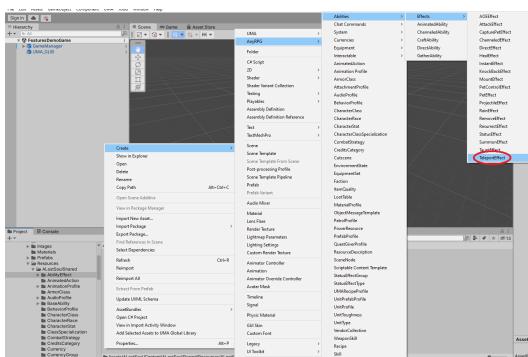
- Add a taunt effect to an [Ability](#).
- Add a taunt effect to another [Ability Effect](#) to chain them together.

## Teleport Effect

A teleport effect teleports the caster to another scene.

## Creation

To create a teleport effect, find (or create) the `GameName/Resources/GameName/AbilityEffect` folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Abilities > Effects > TeleportEffect*.



## Properties

In addition to all the properties of its parent class, [Fixed Length Effect](#), teleport effects have the following properties.

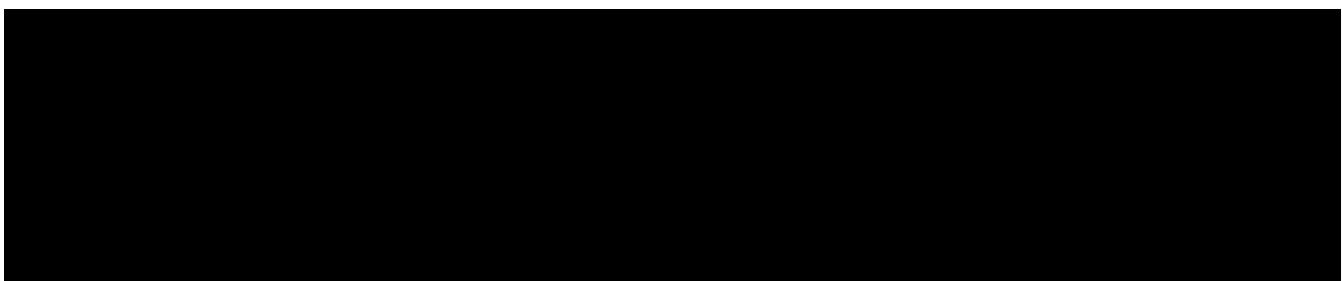
| Name                     | Description  |
|--------------------------|--|
| Level Name               | The name of the <a href="#">Scene</a> to load.   |
| Location Tag             | The name of a tag to search for in the scene. If the tag is found, the player will spawn at the location of the GameObject with the tag. |
| Override Spawn Location  | If true, the player will spawn at the Vector3 location in the <i>Spawn Location</i> field.   |
| Spawn Location           | The Vector3 location the player will spawn at if the <i>Override Spawn Location</i> field is set to true.                                |
| Override Spawn Direction | If true the player will spawn with their forward direction set to the Vector3 direction in the <i>Spawn Forward Direction</i> field.     |
| Spawn Forward Direction  | The Vector3 direction that the player should be facing when they spawn if the <i>Override Spawn Direction</i> field is set to true.      |

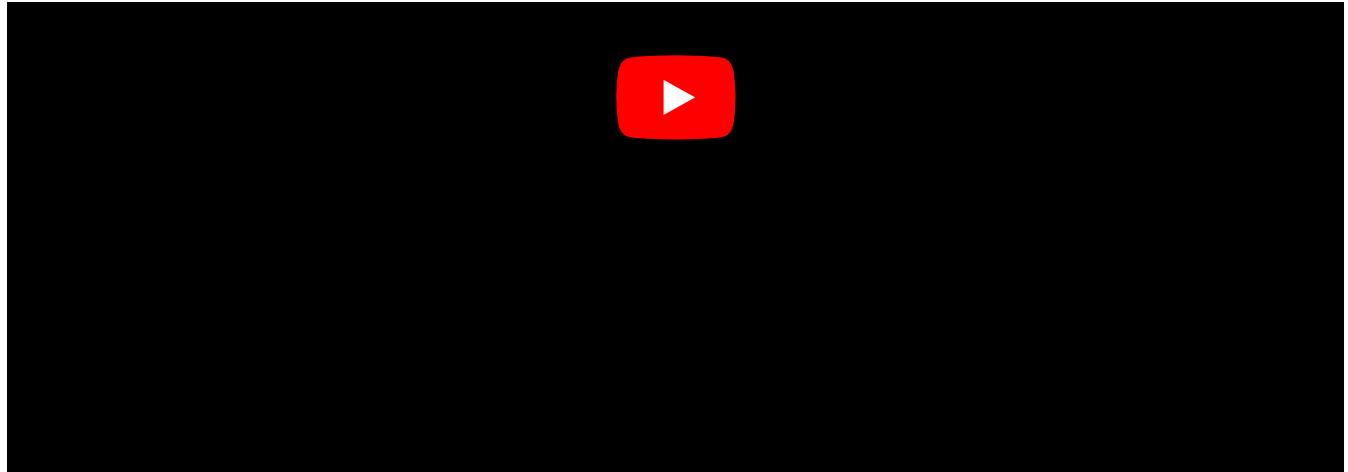
## Next steps

- Add a teleport effect to an [Ability](#).
- Add a teleport effect to another [Ability Effect](#) to chain them together.

## Animated Action

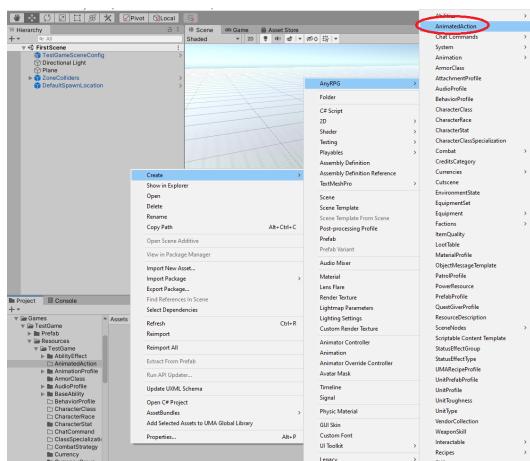
Animated Actions allow the character to perform any animation.





## Creation

To create an animated action, find (or create) the *GameName/Resources/GameName/AnimatedAction* folder in the project tab and right click. Choose *Create > AnyRPG > AnimatedAction*.



## Properties

| Name                   | Description   |
|------------------------|---|
| Animation Clip         | The animation that the character will play when the action is performed.  |
| Animation Profile Name | An animation profile containing animations. The character will play the first cast clip when the action is performed. This property is only used if the <i>AnimationClip</i> property is empty. |
| Casting Audio Profile  | The name of an audio profile containing an audio file to play when the action is performed.   |

---

|                      |   |
|----------------------|---|
| Holdable Object List | A List of prefab profiles to spawn when the action performed. |
|                      |   |

---

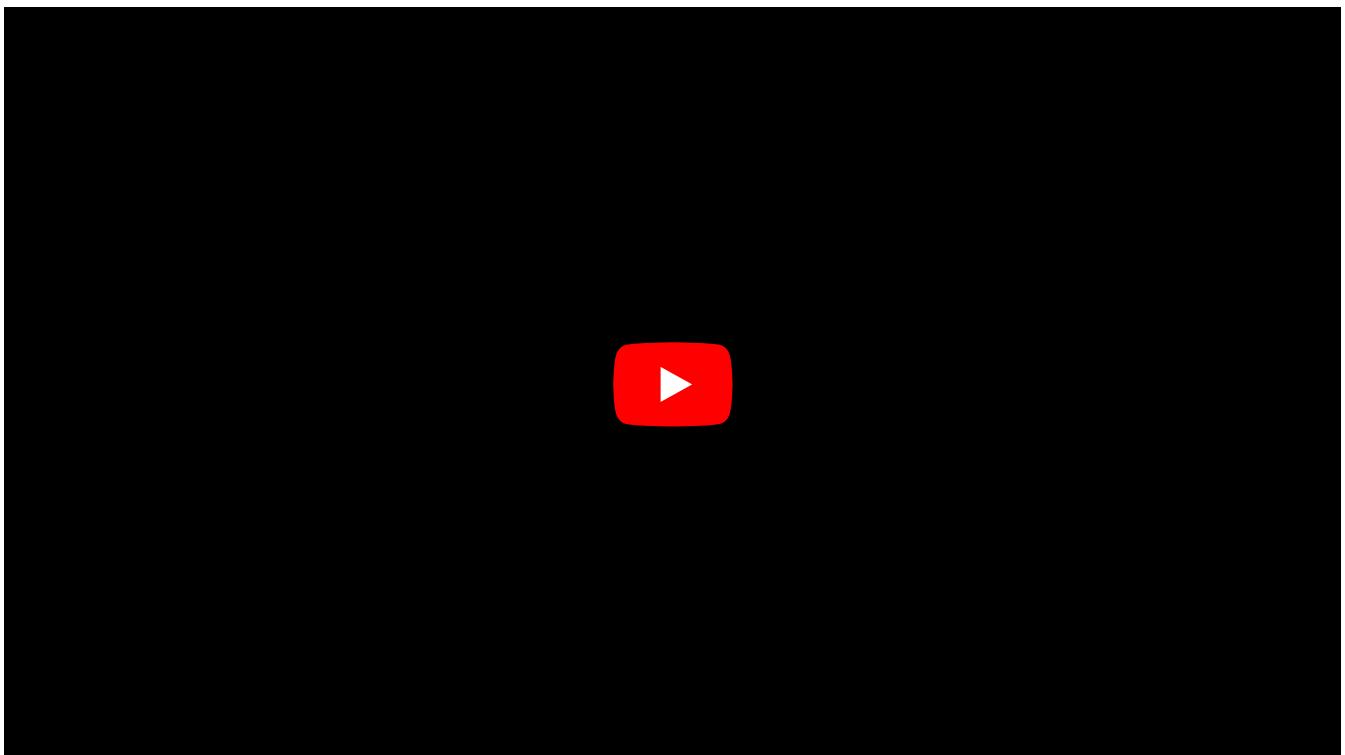
## Usage

Animated actions can be used in the following scriptable objects.

- [ActionEffectItem](#)
- [PowerResourcePotion](#)

## Animation Profile

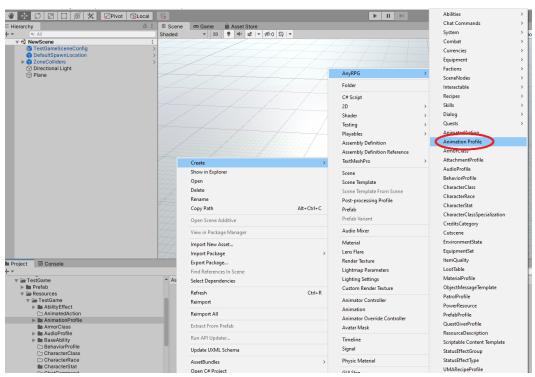
An animation profile stores a list of animations for re-use in unit prefab properties or weapons.



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## Creation

To create an animation profile, find (or create) the *GameName/Resources/GameName/AnimationProfile* folder in the project tab and right click. Choose *Create > AnyRPG > Animation > Profile*.



## Properties

| Name                           | Description   |
|--------------------------------|---|
| Use Root Motion                | If true, root motion will be enabled on the character while the animation is playing, causing the player to move according to the position data in the animation.   |
| Suppress Adjust Animator Speed | If true, the animations will play at their default speed no matter the movement speed or casting speed of the character being animated.   |
| Attack Clips                   | A list of possible animations to play when the character is performing attacks that do not have their own animation profile assigned. If this animation profile is assigned to a special animate attack, then the list will only be applied to that attack. |
| Cast Clips                     | A list of possible animations to play when the character is casting spells that do not have their own animation profile assigned. If this animation profile is assigned to a specific spell, then the list will only be applied to that spell.              |
| Take Damage Clips              | Not yet implemented.  |
| Out Of Combat Movement         | Animations to play when the character is not in combat.   |
| Full Combat Mirror             | If true, the character will use the out of combat animations when they are in combat. This can be useful if a character has no specific in-combat animations included.  |
|                                | Each combat animation can instead use an out of combat animation if these boxes are true. This  |

|                              |  |
|------------------------------|--|
| <Animation Name> Mirror      | setting is useful when a character only includes a partial set of combat animations. |
| Combat <Animation Name> Clip | An animation clip to play for a specific state when in combat.                       |
| Death Clip                   | An animation clip to play when the character dies                                    |
| Revive Clip                  | An animation clip to play when the character is being revived from dead.             |
| Levitated Clip               | An animation clip to play when the character is being levitated off the ground.      |
| Swim Idle Clip               | An animation clip to play when the character is in the water and not moving.         |
| Swim Move Clip               | An animation clip to play when the character is in the water and moving.             |
| Fly Idle Clip                | An animation clip to play when the character is flying, but not moving.              |
| Fly Move Clip                | An animation clip to play when the character is flying, and moving.                  |

## Configuration

Not all available animations need to be assigned since any animation profile used for a character or weapon will only override the base animation profile in use.

If this animation profile will be used for an animated attack, the animation(s) should be placed in the *Attack Clips* list.

If this animation profile will be used for an ability (spell) the animation(s) should be placed in the *Cast Clips* list.

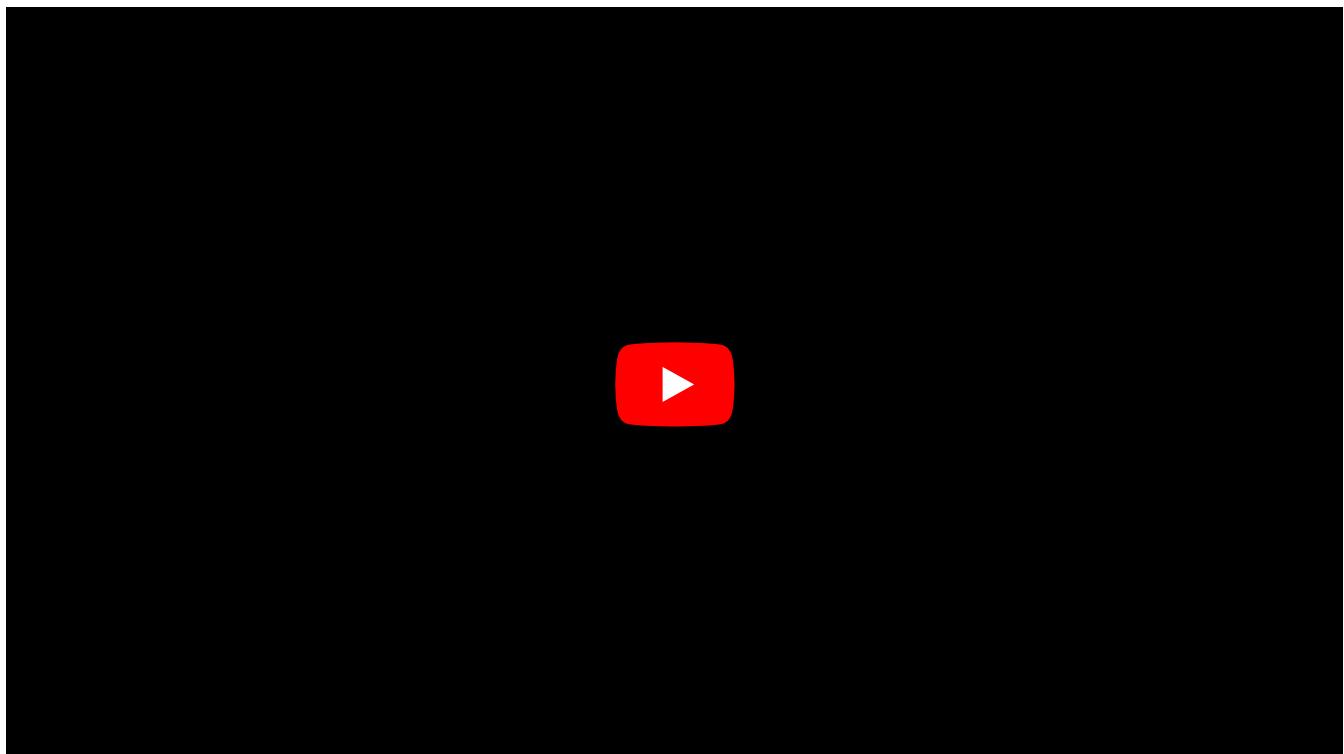
## Next Steps

- Assign the animation profile to a [Weapon](#) to override the movement and auto-attack animations used while that weapon is equipped.
- Assign the animation profile to a [Weapon Skill](#) to override the movement and auto-attack animations for any weapon with that weapon skill assigned while equipped.
- Assign the animation profile to an [Animated Ability](#) to use the Attack Clips for the attack animations.
- Assign the animation profile to an [Ability](#) to use the Cast Clips for casting animations.

- Assign the animation profile to a [Unit Prefab Profile](#), or [Unit Prefab Properties](#) on a [Unit Profile](#) to override the default system animations for that character.

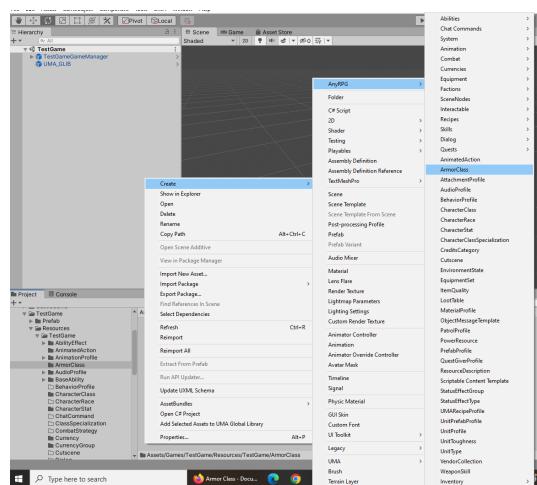
## Armor Class

An armor class defines how much armor equipment should receive, and optionally who can wear the equipment.



## Creation

To create an armor class, find (or create) the `GameName/Resources/GameName/ArmorClass` folder in the project tab and right click. Choose *Create > AnyRPG > ArmorClass*.



## Properties

| Name            | Description  |
|-----------------|--|
| Armor Per Level | <p>The total amount of armor value provided per level if all equipment slots have armor of this type equipped.</p> <p>The formula per piece of equipment is:</p> <pre>Item Level * Armor Per Level * Item Quality Multiplier * (1 / Total Armor Slots)</pre> |

## Next Steps

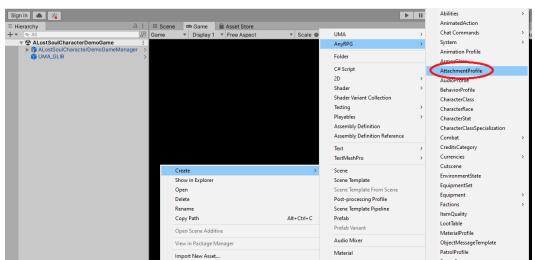
- Create [Armor](#) and assign this armor class to it.
- Configure a [Character Class](#) to be able to equip gear with this armor class assigned.
- Configure a [Character Race](#) to be able to equip gear with this armor class assigned.
- Configure a [Class Specialization](#) to be able to equip gear with this armor class assigned.
- Directly Configure a specific [Unit Profile](#) to be able to equip gear with this armor class assigned.
- Configure a [Unit Type](#) to be able to equip gear with this armor class assigned.
- Configure the Game Manager for your game so that all characters can equip gear with this armor class assigned.

## Attachment Profile

An attachment profile is a mapping of user-friendly bone names to actual bone names, and allows spell effects and equipment to be properly attached to characters with completely different bone names.

## Creation

To create an attachment profile, find (or create) the `GameName/Resources/GameName/AttachmentProfile` folder in the project tab and right click. Choose *Create > AnyRPG > AttachmentProfile*.



## Properties

| Name                   | Description   |
|------------------------|---|
| Attachment Point Nodes | <p>A list of attachment point nodes, which map user friendly bone names to actual bone names.</p> <p><b>Node Name</b><br/>The user friendly bone name which is referred to in the attachment node of the equipment, spell effect etc.</p> <p><b>Position</b><br/>The position any object will be attached at, relative to the <i>Target Bone</i>.</p> <p><b>Rotation Is Global</b><br/>If true, the rotation property will be relative to world space.</p> <p><b>Rotation</b><br/>The rotation of the object being attached, relative to the target bone, or global if the <i>Rotation Is Global</i> property is true.</p> <p><b>Scale</b><br/>The scale of the object being attached.</p> <p><b>Target Bone</b><br/>The actual bone in the character/unit hierarchy that the object will be attached to.</p> |

## Next Steps

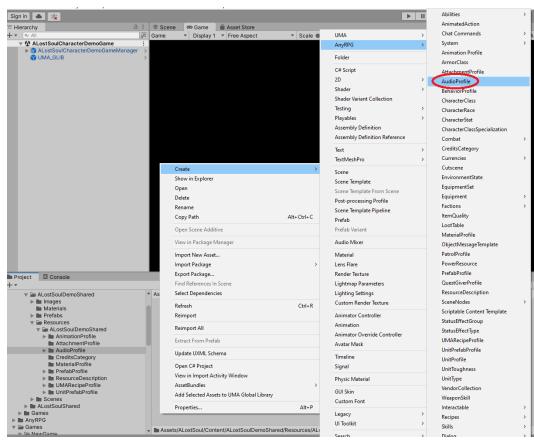
- Refer to an attachment profile in the *Ability Object List* field of an [Ability Effect](#).
- Refer to an attachment profile in the *Holdable Object List* field of an [Ability](#).
- Refer to an attachment profile in the *Holdable Object List* field of a piece of [Equipment](#).
- Refer to an attachment profile in the *Ability Animation Object List* or *Ability Object List* fields of a [Weapon Skill](#).

# Audio Profile

An audio profile contains a list of one or more audio clips to play, and can be used for many purposes, including music and sound effects.

## Creation

To create an audio profile, find (or create) the `GameName/Resources/GameName/AudioProfile` folder in the project tab and right click. Choose *Create > AnyRPG > AudioProfile*.



## Properties

| Name        | Description  |
|-------------|--|
| Artist Name | A text field to enter the name of the artist that composed the audio file. Not currently used in the default UI. |
| Audio Clips | A list of audio files.   |

## Next Steps

- Refer to an audio profile to be used as ambient sounds or background music from a [Scene Node](#).
- Refer to an audio profile to be used as the default hit sound for a [Weapon](#) in the *Default Hit Audio Profile* field.
- Refer to an audio profile to be used as the hit sound for a specific [Weapon Skill](#) in the *On Hit Audio Profiles* list.
-

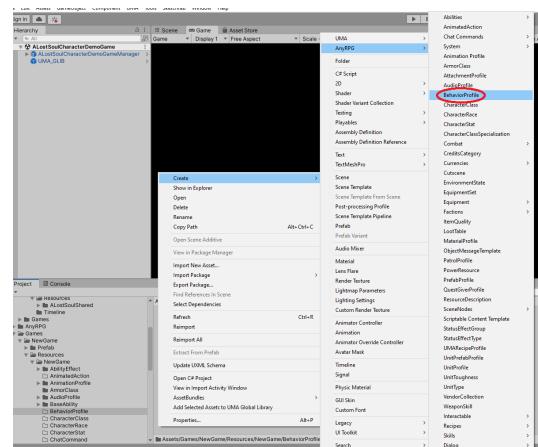
- Refer to an audio profile to be used as the animation hit or casting audio for an [Ability](#).
- Refer to an audio profile to be used as the hit audio in the *On Hit Audio Profile Names* field of an [Ability Effect](#).

## Behavior Profile

A behavior profile is a list of commands that can be sent to a character unit at specified time intervals using Unity's `SendMessage` functionality.

## Creation

To create a behavior profile, find (or create) the `GameName/Resources/GameName/BehaviorProfile` folder in the project tab and right click. Choose *Create > AnyRPG > BehaviorProfile*.



## Properties

| Name                    | Description  |
|-------------------------|--|
| Behavior Nodes          | A list of <a href="#">Behavior Nodes</a> .   |
| Prerequisite Conditions | A list of <a href="#">Prerequisite Conditions</a> .  |
| Automatic               | If true, the object that is using this behavior profile will automatically play the behavior when activate                               |
| Allow Manual Start      | If true, this behavior will appear on the list of interaction options for this character unit and can be manually started by the player. |
| Repeatable              | If true, this behavior can be played more than once.   |
| Looping                 | If true, this behavior will automatically play again when finished.  |

## Behavior Nodes

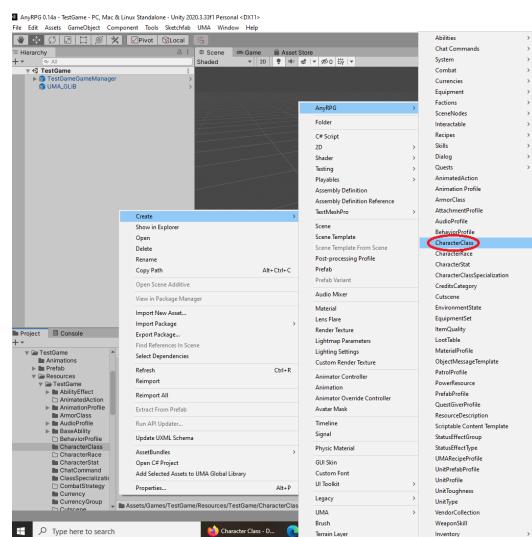
| Name                  | Description  |
|-----------------------|--|
| Start Time            | The time, in seconds, when the behavior node should play.  |
| Behavior Action Nodes | <p>A list of behavior action nodes.</p> <p><b>Behavior Method</b><br/>The name of the method to call using Unity's SendMessage function.</p> <p><b>Behavior Parameter</b><br/>A string parameter to send as the parameter to the <i>Behavior Method</i>.</p> |
|                       |  |

## Character Class

A character class gives characters access to abilities, traits, power resources, character stats, weapon skills, and armor skills.

## Creation

To create a character class, find (or create) the *GameName/Resources/GameName/CharacterClass* folder in the project tab and right click. Choose *Create > AnyRPG > CharacterClass*.



## Properties

| Name                   | Description  |
|------------------------|--|
| New Game Option        | If true, the character class can be chosen for new characters when starting a new game.  |
| Equipment Names        | A List of equipment that will be equipped by characters that choose the character class when starting a new game.  |
| Capabilities           | Lists of abilities, traits, weapon skills, and armor skills the character class provides. See <a href="#">Capabilities</a> for descriptions.                                 |
| Unit Type Capabilities | Lists of <a href="#">Unit Types</a> and corresponding <a href="#">Capabilitie</a> Use this property to restrict certain capabilities to specific unit types.                 |
| Primary Stats          | A List of <a href="#">Stat Scaling Nodes</a> that define primary st budgets per level and secondary stats and power resources granted by those primary stats.                |
| Power Resources        | A list of <a href="#">Power Resources</a> the character will have access to.   |
| Valid Pet Types        | A list of <a href="#">Unit Types</a> the character can keep as pets This property will only be used if the character class has an ability that allows them to capture a pet. |

## Next Steps

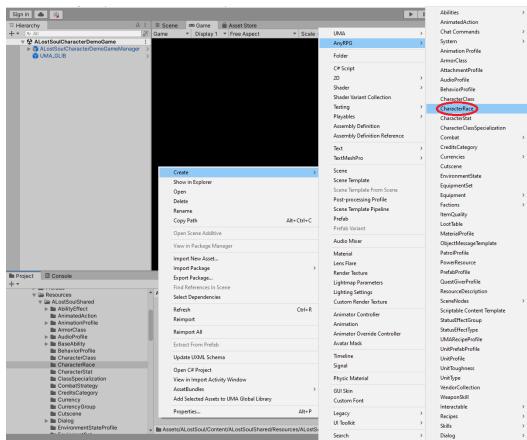
- Enable Character Class selection in the System Configuration Manager of a game.

## Character Race

A character race gives characters access to abilities, traits, power resources, character stats, weapon skills, and armor skills.

## Creation

To create a character race, find (or create) the *GameName/Resources/GameName/CharacterRace* folder in the project tab and right click. Choose *Create > AnyRPG > CharacterRace*.



## Properties

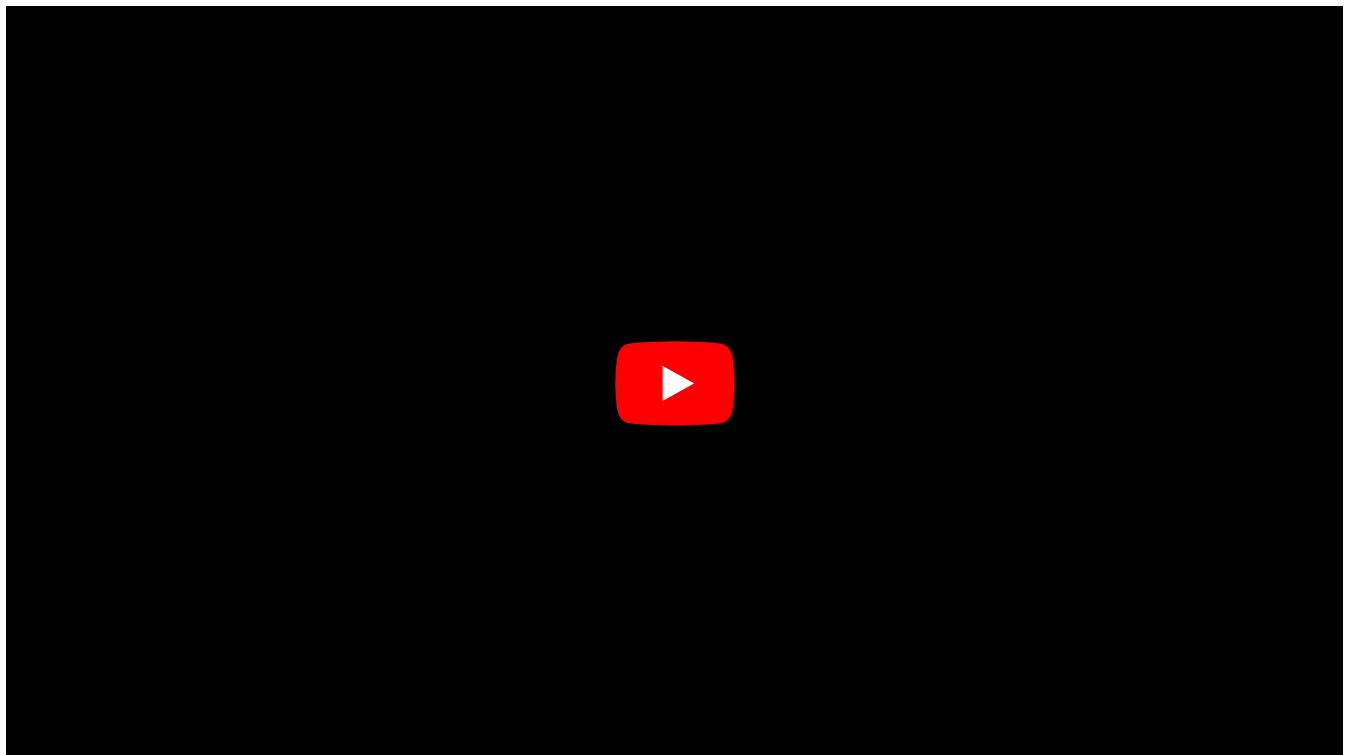
| Name                | Description   |
|---------------------|---|
| Equipment Names     | A List of equipment that will be equipped by characters that choose the character class when starting a new game.   |
| Default Hit Effects | A list of <a href="#">Ability Effects</a> to cast on the target when the character does not have a <a href="#">Weapon</a> equipped and does damage from a standard (auto) attack. |
| On Hit Effects      | A list of <a href="#">Ability Effects</a> to cast on the target when the <a href="#">Weapon</a> does damage from any attack, including standard (auto) attacks.                   |
| Capabilities        | Lists of abilities, traits, weapon skills, and armor skills the character class provides. See <a href="#">Capabilities</a> for descriptions.                                      |
| Primary Stats       | A List of <a href="#">Stat Scaling Nodes</a> that define primary stats budgets per level and secondary stats and power resources granted by those primary stats.                  |
| Power Resources     | A list of <a href="#">Power Resources</a> the character will have access to.  |

## Next Steps

- Assign a character race to a [Unit Profile](#).

## Character Stat

Character stats are attributes that define a character's aptitudes and can affect secondary stats, power resource amounts, and power resource regeneration rates.



---

## Creation

To create a character stat, find (or create) the *GameName/Resources/GameName/CharacterStat* folder in the project tab and right click. Choose *Create > AnyRPG > Character Stat*.



## Specific Properties

These properties exist only in character stat scriptable objects.

| Name        | Description                                    |
|-------------|--|
| Global Stat | If true, all characters will receive the stat. |

## General Properties

These general properties exist anywhere primary stats are defined in other scriptable objects.

| Name                            | Description  |
|---------------------------------|--|
| Budget Per Level                | The amount of the stat that a character will receive for every level.  |
| Primary To Secondary Conversion | <p>The amount of each secondary stat that a character will gain for each point of the primary stat.</p> <p><b>Secondary Stat Type</b></p> <p>A secondary stat.</p> <p><b>Conversion Ratio</b></p> <p>The number of points of each secondary stat that will be gained per point of primary stat.</p> <p><b>Rated Conversion</b></p> <p>A rated conversion is for stats that are percentage. At level 1 you will need 100 points of this secondary stat for 100%, 200 points at level 2, etc. The percent chance at any level is equal to this value multiplied by (Total Stat Amount / Current Level). This allows you to increase or decrease the 100 point requirement for 100% chance.</p> |
| Primary To Resource Conversion  | <p>A list of <a href="#">Power Resources</a> and the number of points of that resource gained per point of the primary stat.</p> <p><b>Resource Name</b></p> <p>The name of the <a href="#">Power Resource</a> that will be increased.</p> <p><b>Resource Per Point</b></p> <p>The amount of the <a href="#">Power Resource</a> that will be gained per point of Character Stat.</p>   |

|                                |   |
|--------------------------------|---|
|                                | A list of the amount of power resources that will be regenerated per tick per point of primary stat.                                      |
| <b>Power Resource</b>          | The name of the Power Resource that will be regenerated.  |
| <b>Percent Per Tick</b>        | The percentage of the Power Resource that will be regenerated per point of Character Stat every tick that the character is not in combat. |
| <b>Amount Per Tick</b>         | The amount of the Power Resource that will be regenerated per point of Character Stat every tick that the character is not in combat.     |
| <b>Combat Percent Per Tick</b> | The percentage of the Power Resource that will be regenerated per point of Character Stat every tick that the character is in combat.     |
| <b>Combat Amount Per Tick</b>  | The amount of the Power Resource that will be regenerated per point of Character Stat every tick that the character is not in combat.     |

## Next Steps

- Customize [Character Classes](#) by adding [Stat Scaling Nodes](#) that give them custom stat budgets, primary to secondary conversions, primary to resource conversions, and power resource regeneration rates.
- Customize [Character Races](#) by adding [Stat Scaling Nodes](#) that give them custom stat budgets, primary to secondary conversions, primary to resource conversions, and power resource regeneration rates.
- Customize [Class Specializations](#) by adding [Stat Scaling Nodes](#) that give them custom stat budgets, primary to secondary conversions, primary to resource conversions, and power resource regeneration rates.
- Customize [Unit Profiles](#) by adding [Stat Scaling Nodes](#) that give them custom stat budgets, primary to secondary conversions, primary to resource conversions, and power resource regeneration rates.
- Customize [Unit Types](#) by adding [Stat Scaling Nodes](#) that give them custom stat budgets, primary to secondary conversions, primary to resource conversions, and power resource regeneration rates.

## Chat Commands

Chat commands are special text strings that are typed into the chat box in the chat log that execute commands.



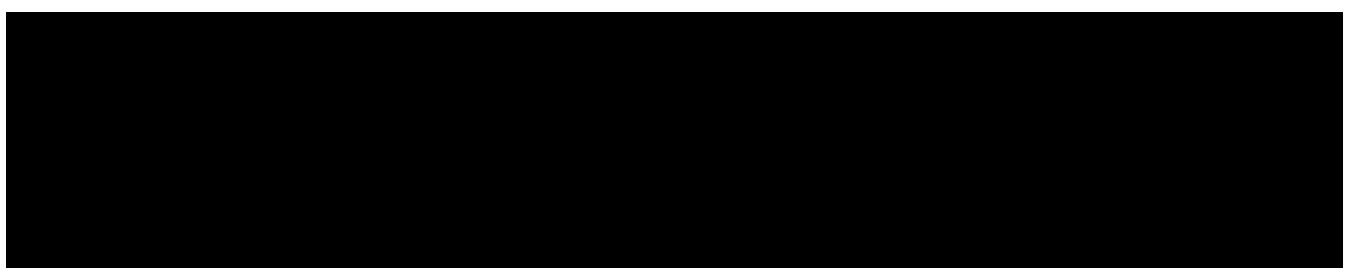
## Usage

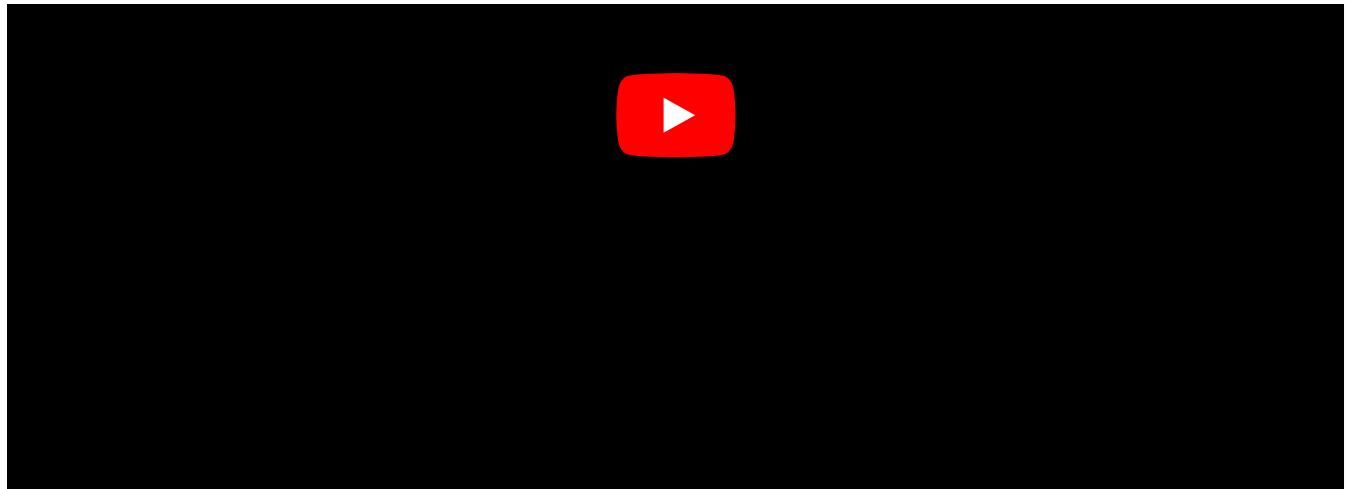
To use a chat command, enter text into the chat box in the chat log that starts with the slash ("/") character, followed by a valid command and any parameters that command accepts. Press `Enter` or click the *Send* button to execute the command.



## Action Command

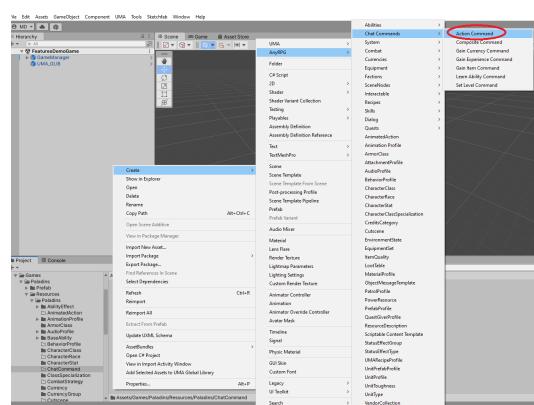
Action commands allow the player to perform animation actions.





## Creation

To create an action command, find (or create) the *GameName/Resources/GameName/ChatCommand* folder in the project tab and right click. Choose *Create > AnyRPG > Chat Commands > Action Command*.



## Properties

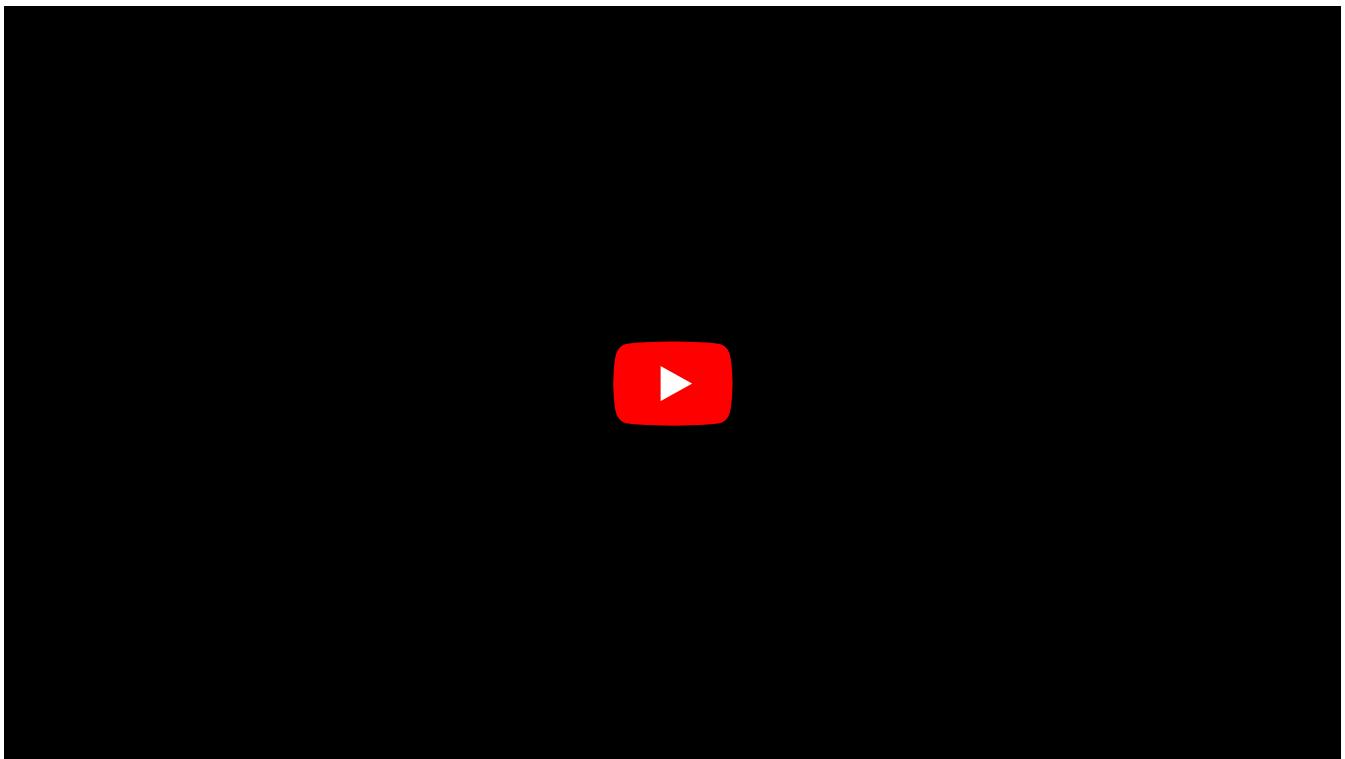
| Name              | Description  |
|-------------------|--|
| Action Properties | A list of <a href="#">Animated Action</a> properties |

## Examples

| Command | Effect                     |
|---------|----------------------------|
| /dance  | Perform a dance animation. |

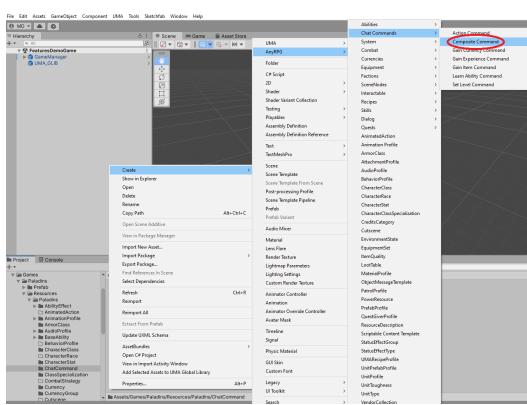
# Composite Command

Composite commands trigger one or more chat commands of any type.



## Creation

To create a composite command, find (or create) the *GameName/Resources/GameName/ChatCommand* folder in the project tab and right click. Choose *Create > AnyRPG > Chat Commands > Composite Command*.



## Properties

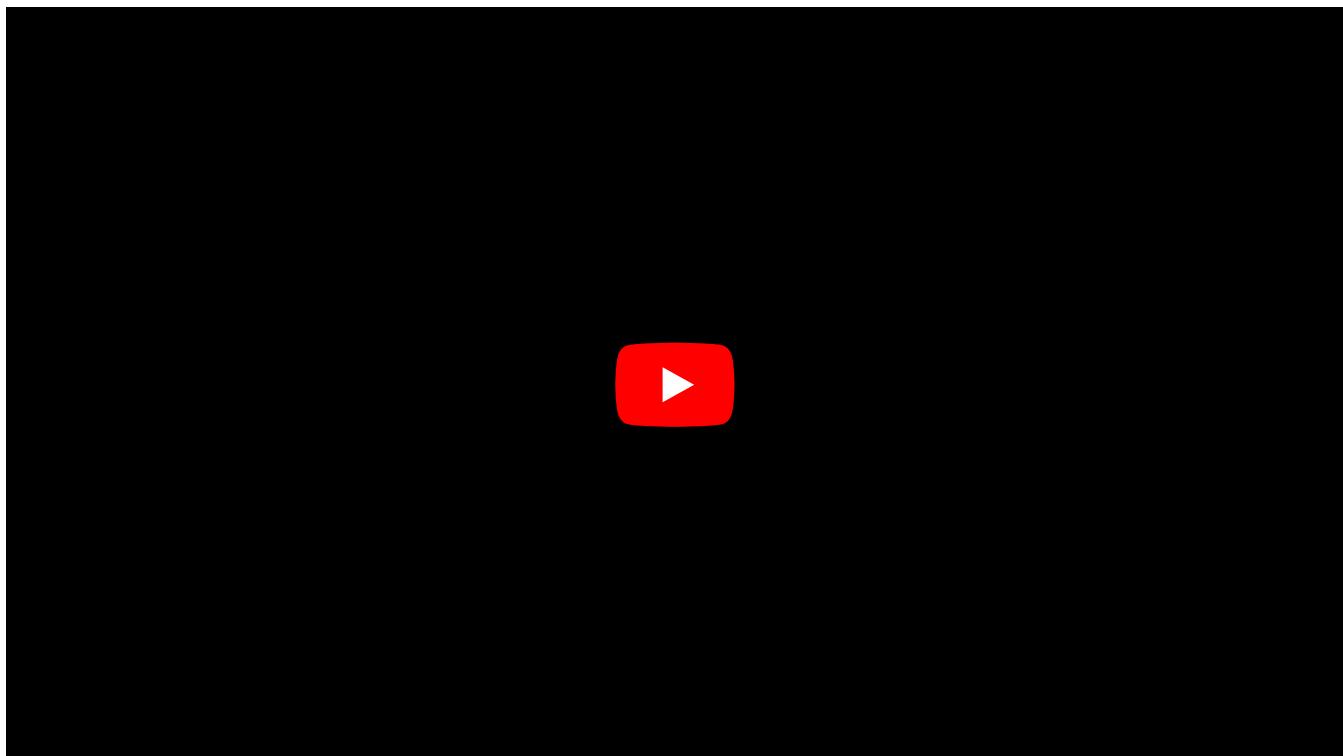
| Name          | Description                         |
|---------------|-------------------------------------|
| Chat Commands | A list of chat commands to trigger. |

## Examples

| Command     | Effect  |
|-------------|---|
| /learnwings | Triggers the commands:<br>/learnability Red Wings<br>/learnability Blue Wings |
| /boost      | Triggers the commands:<br>/setlevel 10<br>/gaicurrency gold 100               |

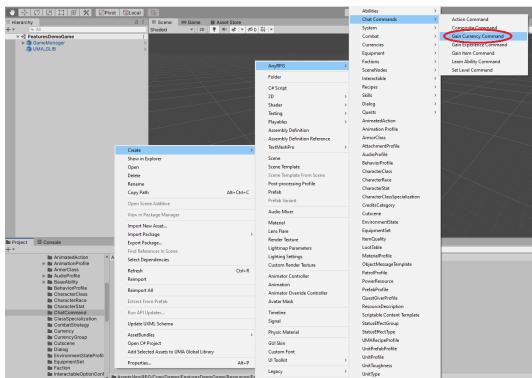
## Gain Currency Command

Gain currency commands provide the player character with currencies.



## Creation

To create a gain currency command, find (or create) the `GameName/Resources/GameName/ChatCommand` folder in the project tab and right click. Choose *Create > AnyRPG > Chat Commands > Gain Currency Command*.



## Properties

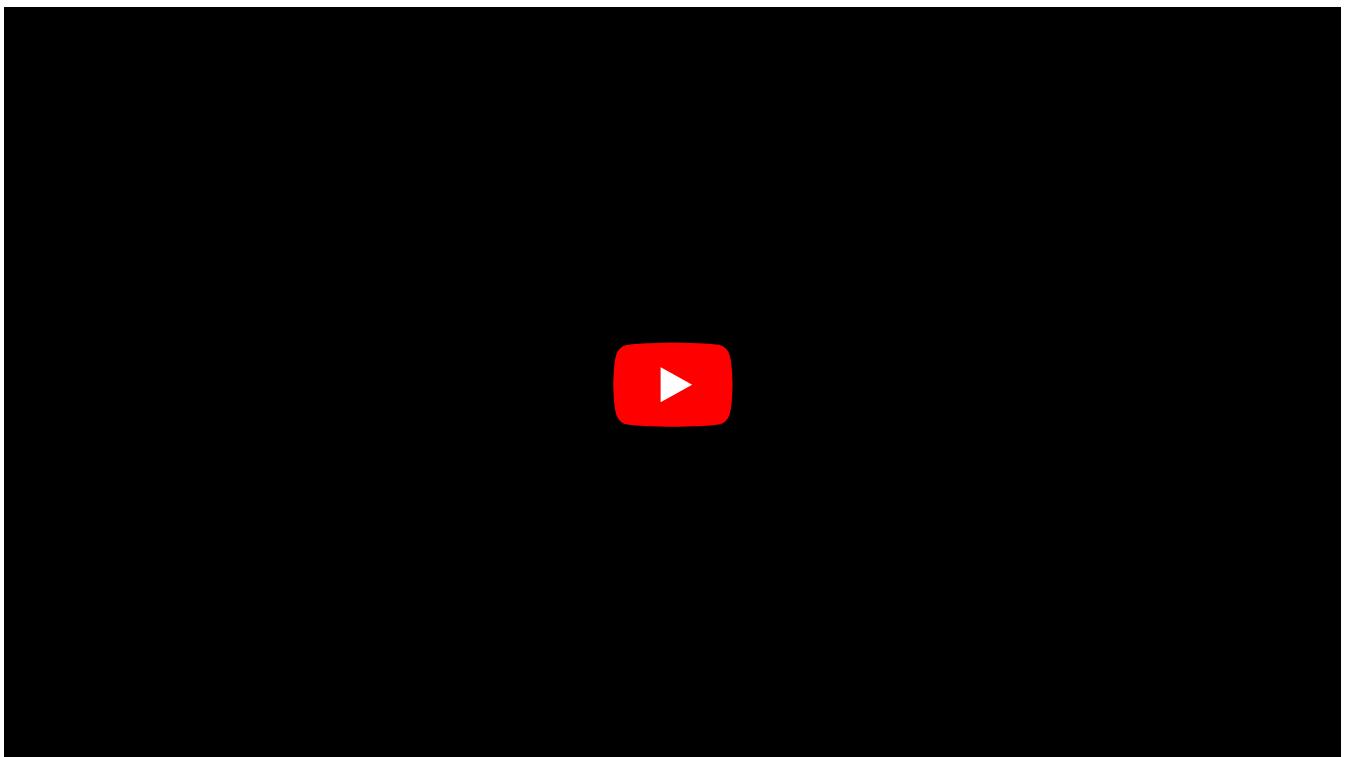
| Name            | Description  |
|-----------------|--|
| Fixed Currency  | If true, the command will always provide the currency listed in the <i>Currency Name</i> property. |
| Currency Name   | The name of the currency to be provided if <i>Fixed Currency</i> is true.                          |
| Fixed Amount    | If true, the command will always provide the amount listed in the <i>Currency Amount</i> property. |
| Currency Amount | The amount of currency to be provided if <i>Fixed Amount</i> is true.                              |

## Examples

| Command                 | Effect  |
|-------------------------|---|
| /gaingold               | Gain a predetermined amount of the gold currency.   |
| /gaincurrency silver    | Gain a predetermined amount of the silver currency. |
| /gainercurrency 10 gold | Gain 10 gold.                                       |

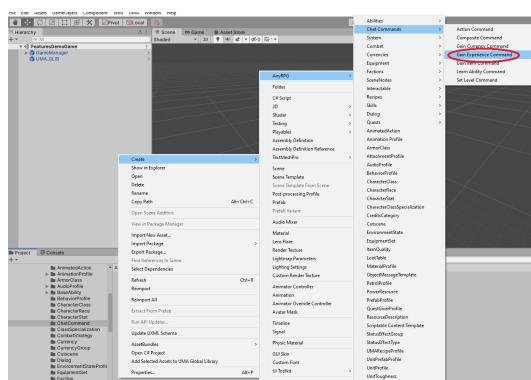
# Gain Experience Command

Gain experience commands increase the players experience points.



## Creation

To create a gain experience command, find (or create) the `GameName/Resources/GameName/ChatCommand` folder in the project tab and right click. Choose *Create > AnyRPG > Chat Commands > Gain Experience Command*.



## Properties

| Name | Description |
|------|-------------|
|      |             |

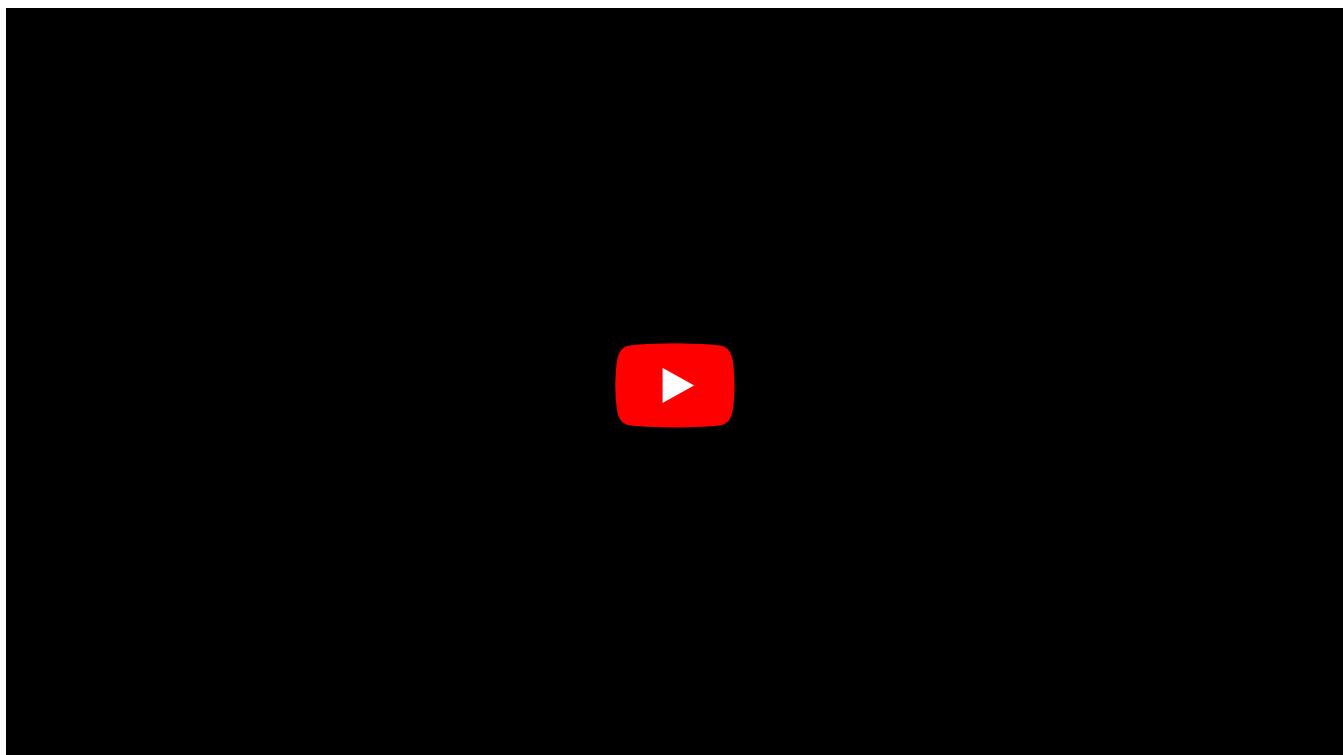
|                   |  |
|-------------------|--|
| Fixed Experience  | If true, the command will always provide the amount of experience listed in the <i>Experience Amount</i> property. |
| Experience Amount | The amount of experience to gain if the <i>Fixed Experience</i> property is true.                                  |

## Examples

| Command     | Effect               |
|-------------|----------------------|
| /gain100xp  | Gain 100 experience. |
| /gainxp 500 | Gain 500 experience. |

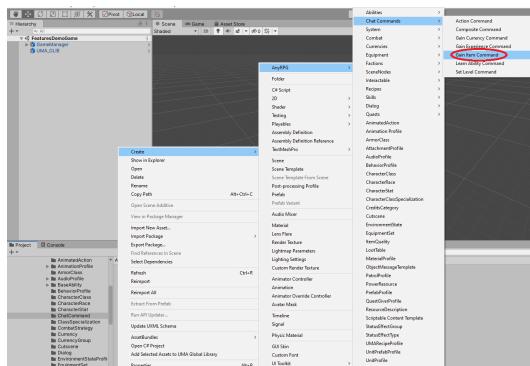
## Gain Item Command

Gain item commands add items to the players inventory.



## Creation

To create a gain item command, find (or create) the `GameName/Resources/GameName/ChatCommand` folder in the project tab and right click. Choose *Create > AnyRPG > Chat Commands > Gain Item Command.*



## Properties

| Name       | Description  |
|------------|--|
| Fixed Item | If true, the item provided will be the item listed in the <i>Item Name</i> property. |
| Item Name  | The name of the item to be provided if the <i>Fixed Item</i> property is true.       |

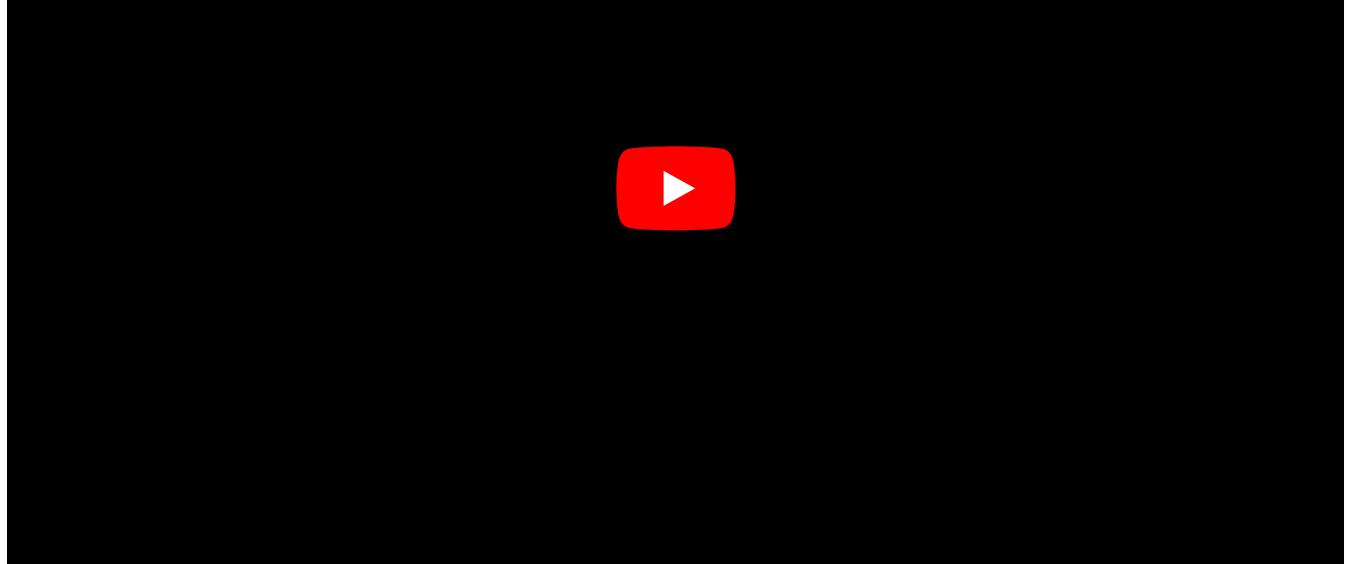
## Examples

| Command                                     | Effect  |
|---|---|
| <code>/gainsword</code>                     | Gain the item defined in the Item Name property   |
| <code>/gainitem Basic One Hand Sword</code> | Gain the item named <i>Basic One Hand Sword</i> . |

## Learn Ability Command

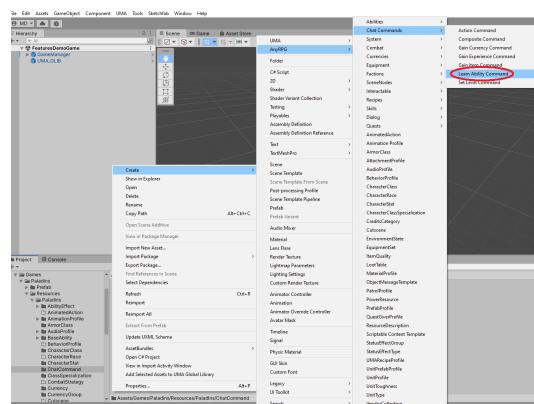
Learn ability commands allow the player to learn abilities.





## Creation

To create a learn ability command, find (or create) the *GameName/Resources/GameName/ChatCommand* folder in the project tab and right click. Choose *Create > AnyRPG > Chat Commands > Learn Ability Command*.



## Properties

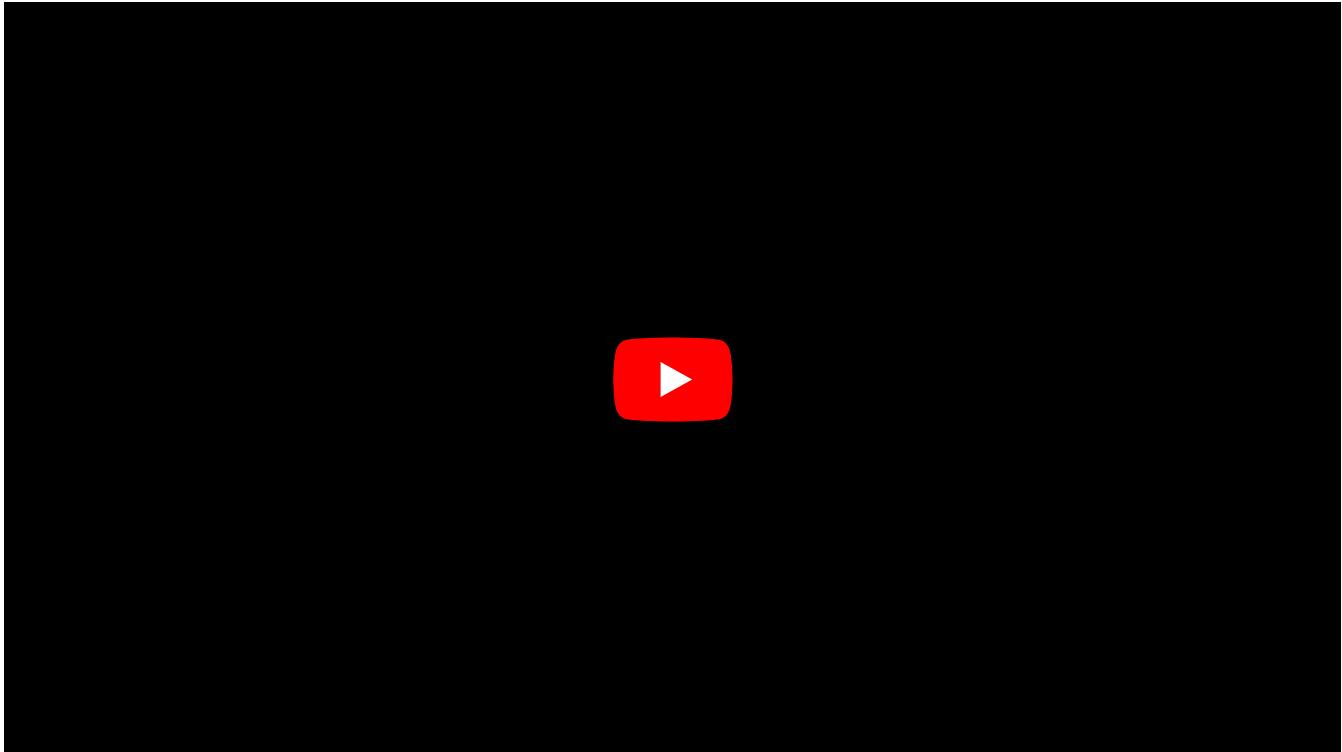
| Name          | Description   |
|---------------|---|
| Fixed Ability | If true, this command will always learn the ability specified in the <i>Ability Name</i> field. |
| Ability Name  | The ability to learn if the <i>Fixed Ability</i> field is set to true.                          |

## Examples

| Command                 | Effect                                |
|-------------------------|---------------------------------------|
| /learnability Red Wings | Learn the ability <i>Red Wings</i> .  |
| /learnbluewings         | Learn the ability <i>Blue Wings</i> . |

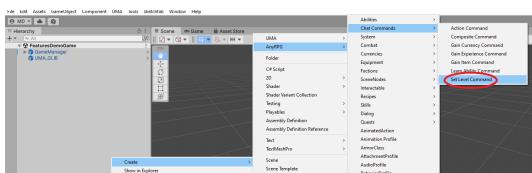
## Set Level Command

Set level commands set the player level.



## Creation

To create a set level command, find (or create) the *GameName/Resources/GameName/ChatCommand* folder in the project tab and right click. Choose *Create > AnyRPG > Chat Commands > Set Level Command*.



## Properties

| Name         | Description   |
|--------------|---|
| Fixed Level  | If true, the player level will always be set to the level specified in the <i>Level Number</i> field. |
| Level Number | If <i>Fixed Level</i> is set to true, this is the level the player will be set to.                    |

## Examples

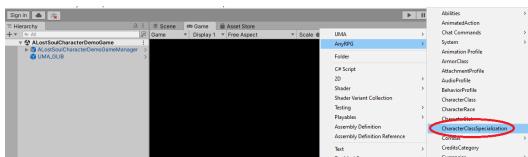
| Command      | Effect                      |
|--------------|-----------------------------|
| /setlevel 10 | Set the player to level 10. |
| /maxlevel    | Set the player to level 50. |

## Class Specialization

A class specialization gives characters access to abilities, traits, power resources, character stats, weapon skills, and armor skills.

## Creation

To create a class specialization, find (or create) the *GameName/Resources/GameName/ClassSpecialization* folder in the project tab and right click. Choose *Create > AnyRPG > CharacterClassSpecialization*.



## Properties

| Name                 | Description   |
|----------------------|---|
| New Game Option      | If true, the class specialization can be chosen for new characters when starting a new game.  |
| Equipment Names      | A list of <a href="#">Equipment</a> that will be equipped by characters that choose the character class when starting a new game.   |
| Class Names          | A list of <a href="#">Character Class</a> names. The character must be one of the classes in the list to choose the class specialization.   |
| Capabilities         | Lists of <a href="#">Abilities</a> , traits, <a href="#">Weapon Skills</a> , and armor skills the class specialization provides. See <a href="#">Capabilities</a> for descriptions. |
| Primary Stats        | A List of <a href="#">Stat Scaling Nodes</a> that define primary stat budgets per level and secondary stats and power resources granted by those primary stats.                     |
| Power Resources      | A list of <a href="#">Power Resources</a> the character will have access to.  |
| Power Enhancer Stats | Deprecated. No longer in use.   |
| Valid Pet Types      | A list of <a href="#">Unit Types</a> the character can keep as pets. This property will only be used if the character has an ability that allows them to capture a pet.             |

## Next Steps

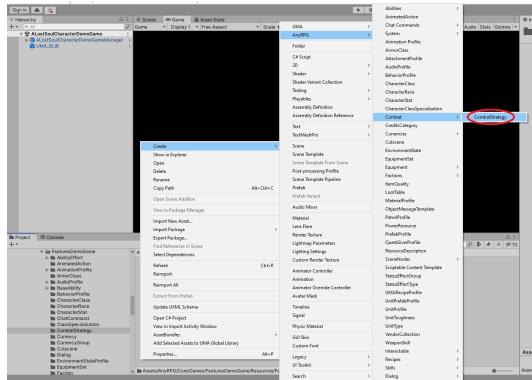
- Enable Character Class Specialization selection in the System Configuration Manager of a game.

## Combat Strategy

A combat strategy defines phases of a fight, which controls what abilities and buffs an AI character will use depending on their health.

## Creation

To create a class specialization, find (or create) the `GameName/Resources/GameName/CombatStrategy` folder in the project tab and right click. Choose *Create > AnyRPG > Combat > CombatStrategy*.



## Properties

| Name        | Description  |
|-------------|--|
| Phase Nodes | <p>A list of phases, defined by the health the AI has.</p> <p><b>Max Health Percent</b><br/>The phase will be started when the AI health drop to this level.</p> <p><b>Min Health Percent</b><br/>The phase will be ended when the AI health drop to this level.</p> <p><b>Phase Music Profile Name</b><br/>The <a href="#">Audio Profile</a> containing the links to the audio clips to play during the phase.</p> <p><b>Maintain Buff Names</b><br/>A list of <a href="#">Abilities</a> to cast to buff the AI.</p> <p><b>Attack Ability Names</b><br/>A list of attack <a href="#">Abilities</a> the AI will use against others during the phase.</p> |

## Next Steps

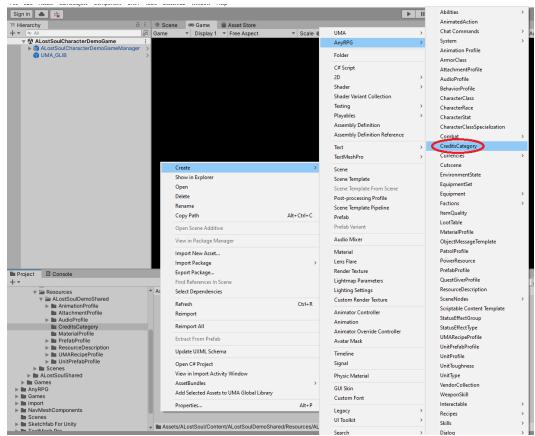
- Assign a combat strategy to a [Unit Profile](#).

# Credits Category

Credits categories contain credits and allow organizing them on the credits page in the engine.

## Creation

To create a credits category, find (or create) the `GameName/Resources/GameName/CreditsCategory` folder in the project tab and right click. Choose *Create > AnyRPG > CreditsCategory*.



## Properties

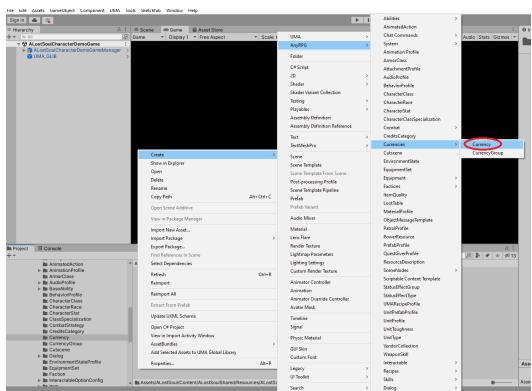
| Name          | Description  |
|---------------|--|
| Category Name | The category name that the credits will appear under.  |
| Credits Nodes | <p>A list of credits.</p> <p><b>Credit Name</b><br/>The item being credited.</p> <p><b>Credit Attribution</b><br/>The person or entity who supplied the item.</p> <p><b>Email</b><br/>Email address of the person or entity who supplied the item.</p> <p><b>User Url</b><br/>An HTTP URL that the web browser should open when the attribution text is clicked. This should lead to the user's main portfolio page or web site.</p> <p><b>Download Url</b><br/>An HTTP URL that the web browser should open when the credit name text is clicked. This should lead directly to the item being credited.</p> |

# Currency

Currencies are in-game money that can be given as quest rewards, and used when buying or selling items to/from vendors.

## Creation

To create a currency, find (or create) the *GameName/Resources/GameName/Currency* folder in the project tab and right click. Choose *Create > AnyRPG > Currencies > Currency*.



## Properties

Currency has no additional properties beyond the properties [shared](#) by all scriptable objects.

## Next Steps

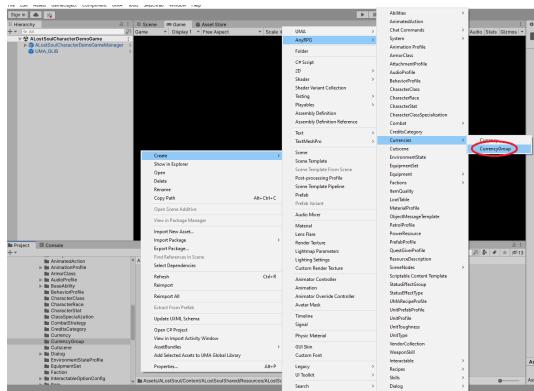
- Assign a currency to an [Item](#) so that it has a vendor buy and sell price.
- Use a currency as a [Quest](#) reward.
- Use a [Currency Item](#) as loot to provide this currency when defeating an enemy.
- Add a currency to a [Currency Group](#) to allow automatic conversion between larger and smaller units.

## Currency Group

A currency group is a collection of currencies that can be automatically converted using defined exchange rates, similar to dollars and cents in the real world.

## Creation

To create a currency group, find (or create) the `GameName/Resources/GameName/CurrencyGroup` folder in the project tab and right click. Choose *Create > AnyRPG > Currencies > CurrencyGroup*.



## Properties

| Name                 | Description  |
|----------------------|--|
| Base Currency Name   | The name of the smallest unit of <a href="#">Currency</a> in this group.   |
| Base Currency        | A direct link to the scriptable object that defines the smallest unit of <a href="#">Currency</a> in this group.   |
| Currency Group Rates | <p>A list of currencies and exchange rates relative to the base <a href="#">Currency</a>.</p> <p><b>Currency Name</b><br/>The name of the unit of currency.</p> <p><b>Currency</b><br/>A direct link to the scriptable object that defines the unit of currency.</p> <p><b>Base Multiple</b><br/>The number of units of the base <a href="#">Currency</a> that make up a single unit of this <a href="#">Currency</a>.</p> |

## Next Steps

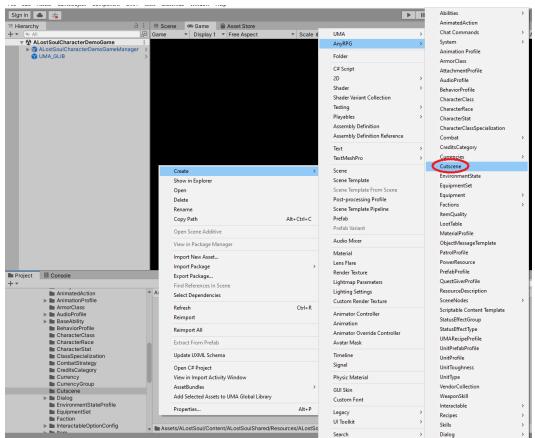
- Define a currency group as the default currency group in the System Configuration Manager, which will display that currency group in vendor windows when buying or selling items.

# Cutscene

A cutscene is a convenient way of displaying important events by moving the camera to predefined points, showing subtitles, and optionally triggering a timeline to make objects perform actions.

## Creation

To create a cutscene, find (or create) the *GameName/Resources/GameName/Cutscene* folder in the project tab and right click. Choose *Create > AnyRPG > Cutscene*.



## Properties

| Name                       | Description  |
|----------------------------|--|
| Repeatable                 | If true, this cutscene can be played more than once.   |
| Require Player Unit Spawn  | If true, the player unit must be spawned in the world for this cutscene to play.                               |
| Use Default Faction Colors | If true, player faction will be ignored, and default faction relationship colors will be used for health bars. |
| Timeline Name              | The name of a Unity Timeline to trigger when this cutscene is played.  |
| Load Scene Name            | The name of a scene to load to play this cutscene.   |
| Unload Scene On End        | If true, the scene that was active before the cutscene played will be loaded when the cutscene ends.           |
| Auto Advance Subtitles     | If true, the subtitles will be played automatically. If false, the timeline will control the subtitles.        |
| Subtitle Properties        | <a href="#">Subtitle Properties</a>  |

## Subtitle Properties

| Name               | Description   |
|--------------------|---|
| Audio Profile Name | The name of an audio profile to play when the cutscene is started.  |
| Subtitle Nodes     | A list of subtitle text and times.<br><b>Start Time</b><br>The time, in seconds after the start of the cutscene to show the text.<br><b>Show Time</b><br>The time, in seconds, that the text should be active after being shown.<br><b>Description</b><br>The text to be shown. |

## Next Steps

- Configure a [Scene Node](#) to automatically play a cutscene when the scene loads.
- Configure a [Cutscene Interactable](#) option to play a cutscene when interacted with.

## Dialog

Dialogs allow AI characters to talk, either through a dialog window in conversation with a player character, or via a monologue that shows in a popup above the character's head.

## Creation

To create a dialog, find (or create) the *GameName/Resources/GameName/Dialog* folder in the project tab and right click. Choose *Create > AnyRPG > Dialog > Dialog*.



## Properties

| Name                    | Description  |
|-------------------------|--|
| Automatic               | If true, this dialog will play in a speech bubble above a character's head, and advance automatically based on the timing in the <i>Dialog Nodes</i> .   |
| Repeatable              | If true, the dialog can be played more than once.  |
| Audio Profile Name      | The name of an audio profile that contains audio profiles to play for each <i>Dialog Node</i> .  |
| Dialog Nodes            | A list of dialog text with optional timings for automatic play, and optional text defining what will show on the next button for manual dialogs.<br><b>Start Time</b><br>The time, in seconds after the dialog is activated, that this dialog node should begin displaying, if the dialog is automatic.<br><b>Show Time</b><br>The time, in seconds, that the dialog should remain active, if the dialog is automatic.<br><b>Description</b><br>The text to show in the dialog window or speech bubble.<br><b>Next Option</b><br>If the dialog is manual, this text will show on the button that causes the dialog to proceed to the next <i>Dialog Node</i> . |
| Prerequisite Conditions | A list of <a href="#">Prerequisite Conditions</a> .  |

## Next Steps

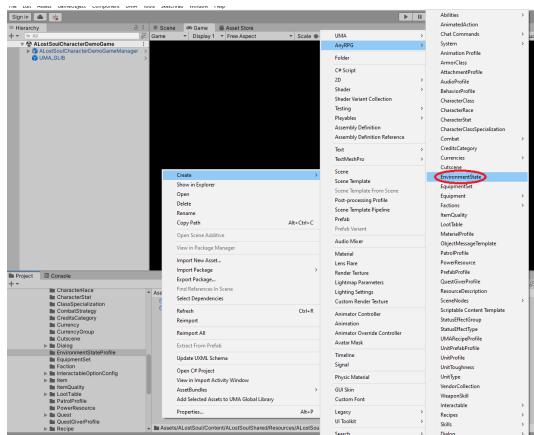
- Add a dialog to a [Dialog Interactable Option](#) so it can be started manually by the player.
- Configure a [Behavior](#) to play a dialog.

# Environment State Profile

An environment state profile references a skybox material profile and can be used to change the skybox from a timeline during a cutscene.

## Creation

To create an environment state profile, find (or create) the `GameName/Resources/GameName/EnvironmentStateProfile` folder in the project tab and right click. Choose *Create > AnyRPG > EnvironmentState*.



## Properties

| Name                          | Description   |
|-------------------------------|---|
| Sky Box Material Profile Name | The name of a <a href="#">Material Profile</a> that contains a link to a skybox material. |

## Next Steps

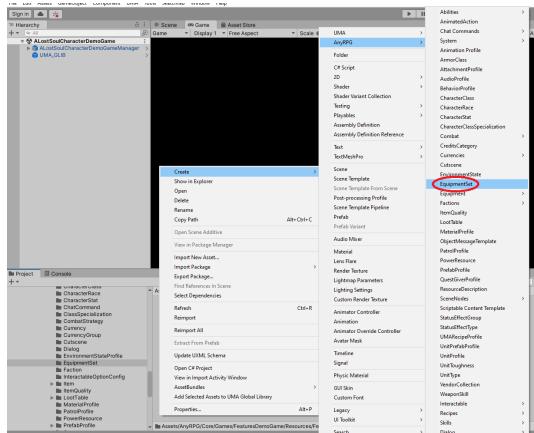
- Refer to an environment state profile in a [Scene Node](#).

## Equipment Set

An equipment set defines two or more pieces of equipment that when worn together, grant the user extra traits (ability effects).

## Creation

To create an equipment set, find (or create) the `GameName/Resources/GameName/EquipmentSet` folder in the project tab and right click. Choose *Create > AnyRPG > EquipmentSet*.



## Properties

| Name            | Description  |
|-----------------|--|
| Equipment Names | A list of <a href="#">Equipment</a> that comprises the set.  |
| Trait Names     | A list of <a href="#">Ability Effects</a> that will be automatically applied on the character when they have a certain number of pieces of the set equipped. |

## Next Steps

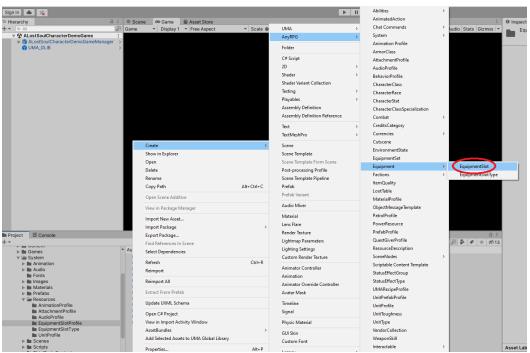
- Add the Equipment Set Property to the [Equipment](#) defined in this set.

## Equipment Slot Profile

An equipment slot profile defines a physical slot that equipment can be placed in when equipped on a character. Most games will probably not need to adjust these.

## Creation

To create an equipment set, find (or create) the `GameName/Resources/GameName/EquipmentSlotProfile` folder in the project tab and right click. Choose *Create > AnyRPG > Equipment> EquipmentSlot*.



## Properties

| Name                     | Description   |
|--------------------------|---|
| Main Weapon Slot         | If true, the icon from any <a href="#">Item</a> equipped in this slot will be used for auto-attack <a href="#">Abilities</a> on action bars |
| Stat Weight              | A weighted value to control distribution of <a href="#">Stats</a> among gear.   |
| Equipment Slot Type List | A list of <a href="#">Equipment Slot Types</a> that can be equipped in this physical slot.  |
| Set On Hit Audio         | If true, items in this list will set on-hit audio sounds they have one. This is mostly useful for weapon slots.                             |

## Next Steps

- If new equipment slot profiles are defined, a custom UI will need to be created that will display the new slots.

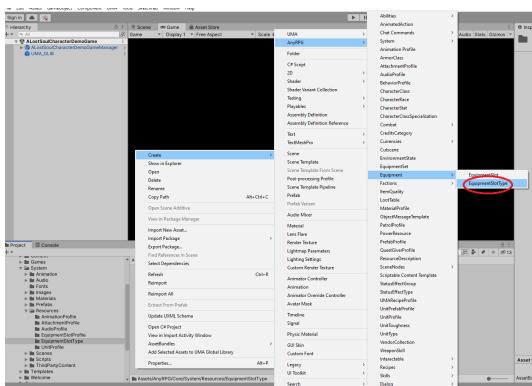
## Equipment Slot Type

An equipment slot type is an abstraction that allows the user to define multiple physical equipment slots that equipment can be equipped in.

## Creation

To create an equipment set, find (or create) the `GameName/Resources/GameName/EquipmentSlotType`

folder in the project tab and right click. Choose *Create > AnyRPG > Equipment > EquipmentSlotType*.



## Properties

| Name                    | Description   |
|-------------------------|---|
| Stat Weight             | A weighted value to control distribution of <a href="#">Stats</a> among gear.   |
| Exclusive Slot Profiles | A list of <a href="#">Equipment Slot Profiles</a> that will be unequipped if equipment of this slot type is equipped. |
| Exclusive Slot Types    | A list of equipment slot types that will be unequipped if equipment of this slot type is equipped.                    |

## Next Steps

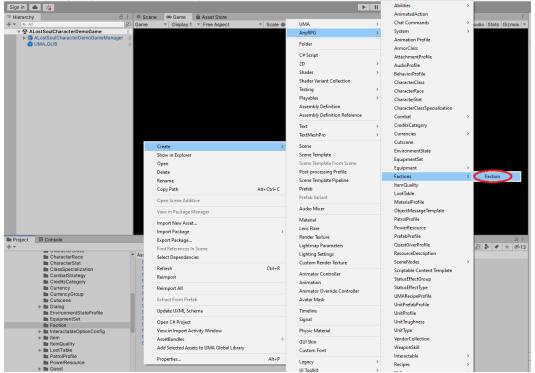
- Assign an equipment slot type to a piece of [Equipment](#).

## Faction

Factions allow for groups of characters to have the same relationship disposition toward other groups of characters.

## Creation

To create a faction, find (or create) the *GameName/Resources/GameName/Faction* folder in the project tab and right click. Choose *Create > AnyRPG > Factions > Faction*.



## Properties

| Name                            | Description   |
|---------------------------------|---|
| New Game Option                 | If true, this faction can be chosen as the faction the player will be part of when starting a new game.   |
| Default Starting Zone           | The zone ( <a href="#">Scene</a> ) that new players will start in if this faction is chosen when starting a new game.   |
| Default Starting Location Tag   | If not empty, players starting as this faction will spawn at the transform with this tag.   |
| Hide Default Profiles           | If true, hide any default unit profiles when this faction is used.  |
| Character Creator Profile Names | A list of <a href="#">Unit Profiles</a> that the player can choose from when starting as this faction.  |
| Equipment Names                 | A list of <a href="#">Equipment</a> that will be worn by a new player when starting the game as this faction.   |
| Default Disposition             | The disposition (relationship) that this faction has toward any faction not specifically in its disposition list.   |
| Disposition List                | A list of factions and the dispositions that this faction will have toward them.<br><b>Faction Name</b><br>The name of a faction<br><b>Disposition</b><br>The disposition (relationship) that this faction will have toward them. |
| Capabilities                    | A list of <a href="#">Capabilities</a> that any character that is part of this faction will have.   |

|                       |  |
|-----------------------|--|
| Class Capability List | A list of character classes, and the capabilities those classes will have.<br><b>Character Classes</b><br>A list of <a href="#">Character Classes</a> .<br><b>Capabilities</b><br>The specific <a href="#">Capabilities</a> that any <a href="#">Character Class</a> in the <i>Character Classes</i> list will have. |
|-----------------------|--|

---

## Next Steps

- Configure the System Configuration Manager to allow choosing a faction when starting a new game.

## Interactable Option Configurations

Interactable option configurations are shared configurations that allow for the re-use of specific interactable settings among different NPCs.

## Properties

All interactable option configurations share the following common properties.

| Name                    | Description   |
|-------------------------|---|
| Interaction Panel Title | The text to display in the interaction panel window to activate the option. This will only be shown if there is more than one option available.   |
| Interaction Panel Image | The image to display beside the text in the interaction panel window to activate the option. This will only be shown if there is more than one option available.                                    |
| Name Plate Image        | If there is no system option set in the System Configuration manager for the nameplate image or the interaction type, this image will be shown above the nameplate if the interaction is available. |
| Prerequisite Conditions | A list of <a href="#">Prerequisite Conditions</a> that must be satisfied for the interaction option to be available.  |

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## Next Steps

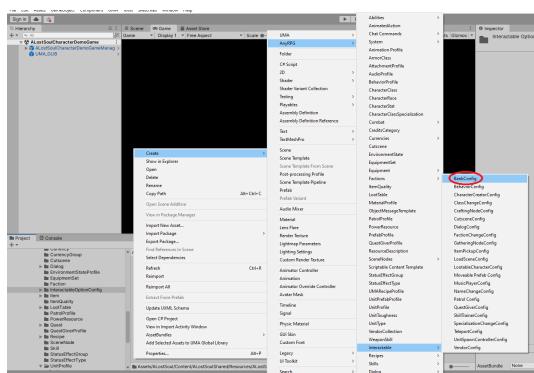
- Create shared interactable option configurations to be re-used among different NPCs.
- Use inline interactable option configurations in [Unit Profiles](#) if a specific interactable option is needed that will not be shared or re-used.

## Bank Config

A bank config creates a bank interactable option, which allows the character to store items.

## Creation

To create a bank config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose *Create > AnyRPG > Interactable > BankConfig*.



## Properties

A bank config does not have any properties other than the properties shared by all [Interactable Option Configs](#).

## Next Steps

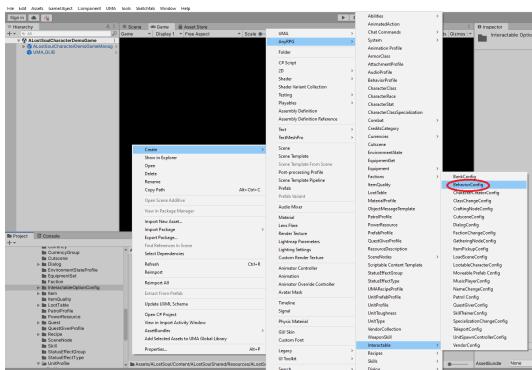
- Add a bank config to a [Unit Profile](#) to allow the character to serve as a bank.

## Behavior Config

A behavior config creates behavior interactable options, allowing automatic or player initiated behaviors to be run by a character.

# Creation

To create a behavior config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose *Create > AnyRPG > Interactable > BehaviorConfig*.



# Properties

| Name           | Description  |
|----------------|--|
| Behavior Names | A list of <a href="#">Behavior Profiles</a> that can be run. |

# Next Steps

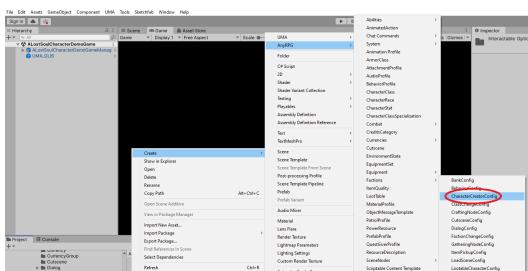
- Add a behavior config to a [Unit Profile](#) to allow the character to run behaviors.

# Character Creator Config

A character creator config creates a character creator interactable option, which allows a character to open the character creator window, giving the player the ability to change their appearance.

# Creation

To create a character creator config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose *Create > AnyRPG > Interactable > CharacterCreatorConfig*.



## Properties

A bank config does not have any properties other than the properties shared by all [Interactable Option Configs](#).

## Next Steps

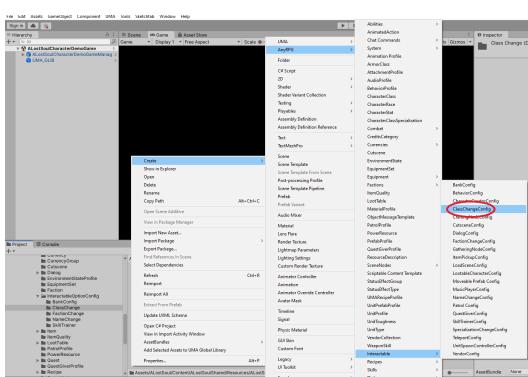
- Add a character creator config to a [Unit Profile](#) to allow the character to open the character creator window.

## Class Change Config

A class change config creates a class change interactable option, which opens the class change window, allowing the player to change their character class.

## Creation

To create a behavior config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose *Create > AnyRPG > Interactable > ClassChangeConfig*.



## Properties

| Name       | Description   |
|------------|---|
| Class Name | The name of the <a href="#">Character Class</a> the player can change to. |

## Next Steps

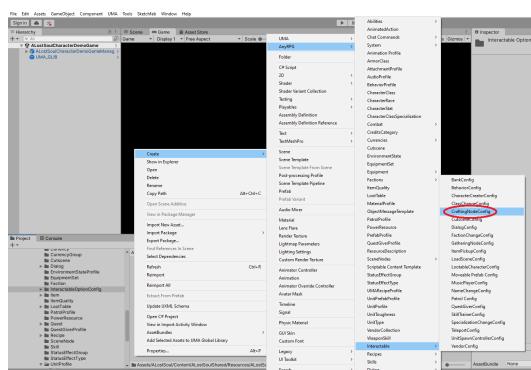
- Add a class change config to a [Unit Profile](#) to allow the character to open the class change window.

## Crafting Node Config

A crafting node config creates a crafting interactable option, allowing the player to open the crafting window and craft items.

## Creation

To create a crafting node config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose [Create > AnyRPG > Interactable > CraftingNodeConfig](#).



## Properties

| Name         | Description   |
|--------------|---|
| Ability Name | The name of the <a href="#">Craft Ability</a> the crafting window will support. |

## Next Steps

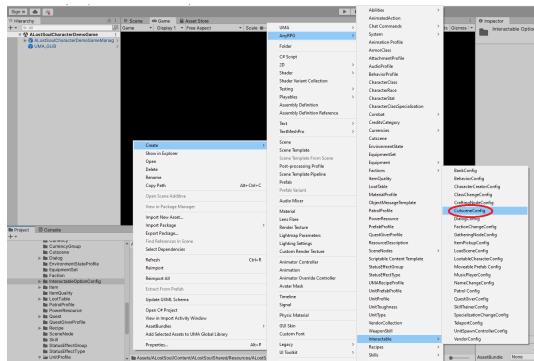
- Add a crafting node config to a [Unit Profile](#) to allow the character to open the crafting window and craft items.

## Cutscene Config

A cutscene config creates a cutscene interactable option, which loads and plays a cutscene.

## Creation

To create a cutscene config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose *Create > AnyRPG > Interactable > CutsceneConfig*.



## Properties

| Name          | Description                                       |
|---------------|---|
| Cutscene Name | The name of the <a href="#">Cutscene</a> to play. |

## Next Steps

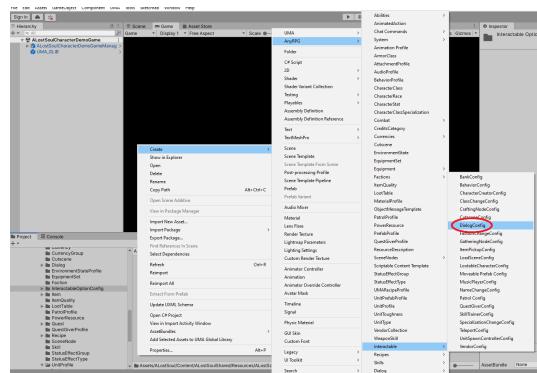
- Add a cutscene config to a [Unit Profile](#) to allow the character to play a cutscene.

## Dialog Config

A dialog config creates a dialog interactable option, allowing the player to open a dialog window and interact with it.

## Creation

To create a dialog config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose `Create > AnyRPG > Interactable > DialogConfig`.



# Properties

| Name         | Description   |
|--------------|---|
| Dialog Names | A list of <a href="#">Dialogs</a> that can be launched. |

## Next Steps

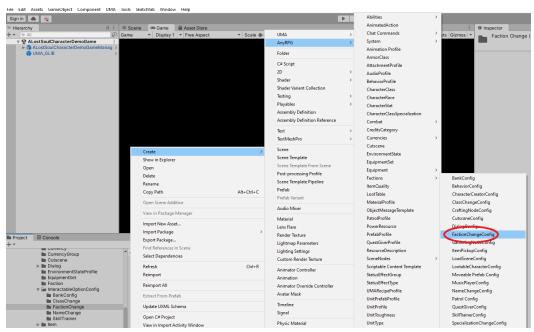
- Add a dialog config to a [Unit Profile](#) to allow the character to launch dialogs.

## Faction Change Config

A faction change config creates a faction change interactable option, allowing the player to open the faction change window and change their faction.

## Creation

To create a faction change config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose *Create > AnyRPG > Interactable > FactionChangeConfig*.



## Properties

| Name         | Description   |
|--------------|---|
| Faction Name | A list of <a href="#">Dialogs</a> The name of the <a href="#">Faction</a> the player can change to. |

## Next Steps

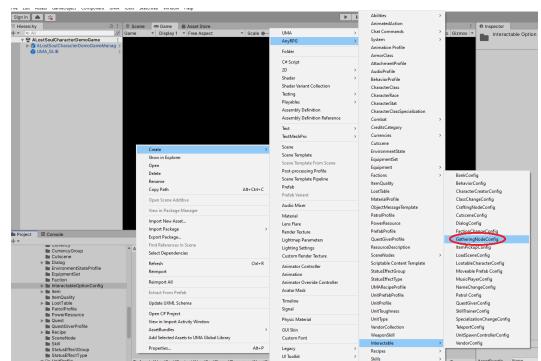
- Add a faction change config to a [Unit Profile](#) to allow the player to change their faction.

## Gathering Node Config

A gathering node config creates a gathering node interactable option, allowing the player to gather crafting resources.

## Creation

To create a gathering node config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose [Create > AnyRPG > Interactable > GatheringNodeConfig](#).



# Properties

| Name             | Description  |
|------------------|--|
| Loot Table Names | A list of <a href="#">Loot Tables</a> containing <a href="#">Items</a> this node can drop when gathering is performed. |
| Spawn Timer      | The number seconds after all <a href="#">Items</a> have been looted before the node resets and spawns again.           |
| Ability Name     | The name of a <a href="#">Gather Ability</a> the player must know to interact with the gathering node.                 |

## Next Steps

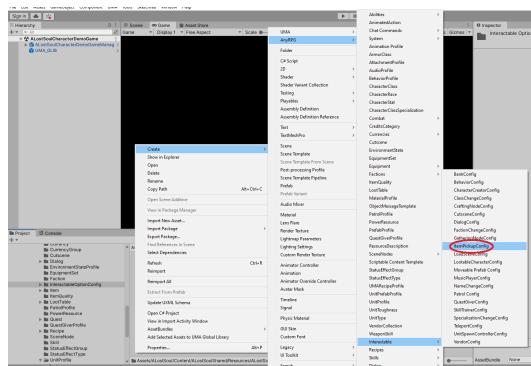
- Add a gathering node config to an Interactable to allow gathering from it.

# Item Pickup Config

An item pickup config creates an item pickup interactable option, allowing the player to loot items.

## Creation

To create an item pickup config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose `Create > AnyRPG > Interactable > ItemPickupConfig`.



# Properties

| Name             | Description  |
|------------------|--|
| Loot Table Names | A list of <a href="#">Loot Tables</a> containing <a href="#">Items</a> this node can drop when gathering is performed. |
| Spawn Timer      | The number seconds after all <a href="#">Items</a> have been looted before the node resets and spawns again.           |

## Next Steps

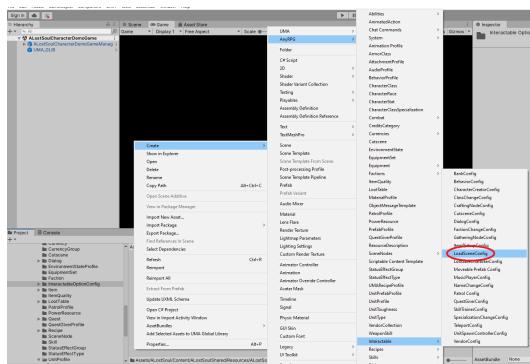
- Add an item pickup config to an Interactable to allow looting items from it.

## Load Scene Config

A load scene config creates a load scene interactable option, allowing the player to travel to another scene by interacting with it.

## Creation

To create a load scene config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose `Create > AnyRPG > Interactable > LoadSceneConfig`.



## Properties

| Name         | Description  |
|--------------|--|
| Location Tag | The name of a tag to search for in the scene. If the tag is found, the player will spawn at the location of the GameObject with the tag. |

|                          |  |
|--------------------------|--|
| Override Spawn Location  | If true, the player will spawn at the Vector3 location in the <i>Spawn Location</i> field.   |
| Spawn Location           | The Vector3 location the player will spawn at if the <i>Override Spawn Location</i> field is set to true.                            |
| Override Spawn Direction | If true the player will spawn with their forward direction set to the Vector3 direction in the <i>Spawn Forward Direction</i> field. |
| Spawn Forward Direction  | The Vector3 direction that the player should be facing when they spawn if the <i>Override Spawn Direction</i> field is set to true.  |
| Scene Name               | The name of the scene to load.   |

## Next Steps

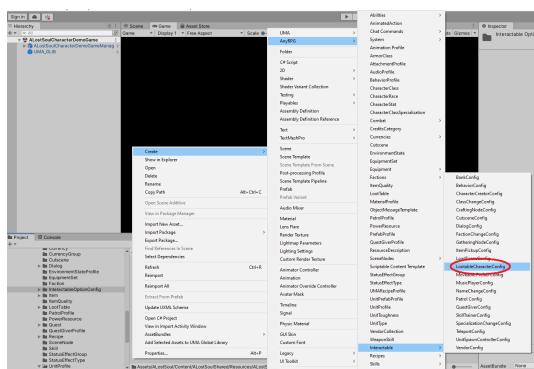
- Add a load scene config to an Interactable to allow the player to load a scene by interacting with it.

## Lootable Character Config

A lootable character config creates a lootable character interactable, allowing the player to loot the character when it dies.

## Creation

To create a lootable character config, find (or create) the *GameName/Resources/GameName/InteractableOptionConfig* folder in the project tab and right click. Choose *Create > AnyRPG > Interactable > LootableCharacterConfig*.



## Properties

| Name               | Description   |
|--------------------|---|
| Automatic Currency | If true, when killed, this character will drop the system defined <a href="#">Currency</a> amount for its level and <a href="#">Toughness</a> . |
| Loot Table Names   | The names of <a href="#">Loot Tables</a> containing <a href="#">Items</a> that can potentially drop when the character dies.                    |

## Next Steps

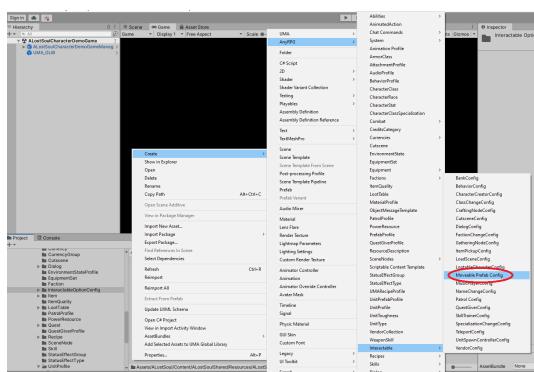
- Add a lootable character config to a [Unit Profile](#) to allow the player to collect loot from it when it dies.

## Moveable Prefab Config

A moveable prefab config creates a moveable prefab interactable option, which allows the prefab to be moved or rotated by interacting with a switch.

## Creation

To create a moveable prefab config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose *Create > AnyRPG > Interactable > MoveablePrefabConfig*.



## Properties

| Name           | Description                             |
|----------------|---|
| Movement Speed | The speed that the prefab will move at. |

Rotation Speed

The speed that the prefab will be rotated at.

Loop

If true, the prefab will return to its starting position and rotation when done moving, and then continue its movement again.

## Next Steps

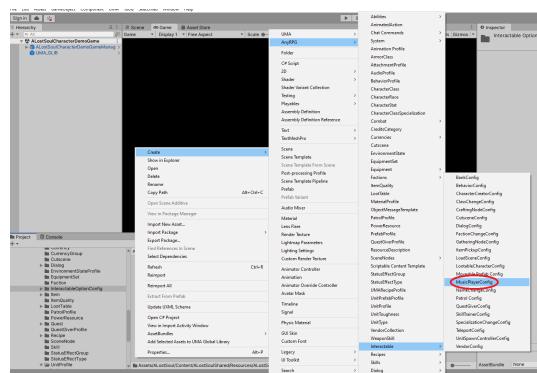
- Add a moveable prefab config to an Interactable to allow it to be moved with a switch.

## Music Player Config

A music player config creates a music player interactable option, allowing the player to open a window with a list of audio clips and play them.

## Creation

To create a music player config, find (or create) the *GameName/Resources/GameName/InteractableOptionConfig* folder in the project tab and right click. Choose *Create > AnyRPG > Interactable > MusicPlayerConfig*.



## Properties

| Name       | Description  |
|------------|--|
| Audio Type | <p>The type of sound to play. This affects which audio source will be used.</p> <p><b>Music</b></p> <p>The sound will be played through the background music audio source.</p> <p><b>Ambient</b></p> |

|  |  |
|--|--|
| <p><b>Audio Profile Names</b></p>  | <p>The sound will be played through the ambient sounds audio source.</p> <p><b>Effect</b></p> <p>The sound will be played through the sound effect audio source.</p> |
| <p>A list of the names of <a href="#">Audio Profiles</a> that contain lists of audio clips that can be played.</p> |  |

## Next Steps

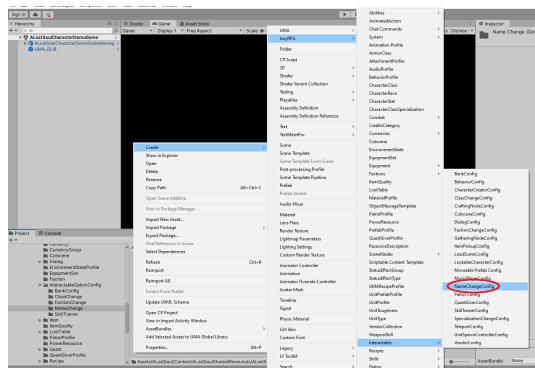
- Add a music player config to an Interactable to allow opening the music player window.

## Name Change Config

A name change config creates a name change interactable option, which allows the player to change their name.

## Creation

To create a name change config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose *Create > AnyRPG > Interactable > NameChangeConfig*.



## Properties

A name change config does not have any properties other than the properties shared by all [Interactable Option Configs](#).

## Next Steps

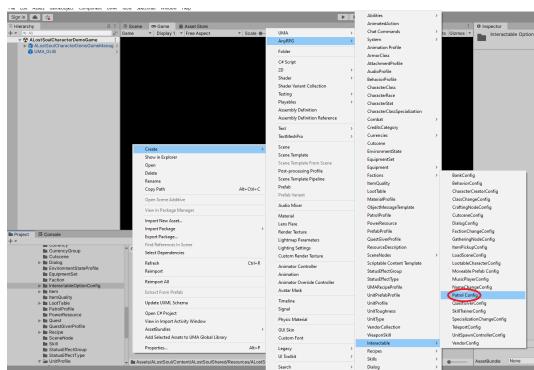
- Add a name change config to a [Unit Profile](#) to allow the character to serve as a name changer.

## Patrol Config

A patrol config creates a patrol interactable option, allowing the player to trigger patrols by interacting with the character.

## Creation

To create a patrol config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose *Create > AnyRPG > Interactable > Patrol/Config*.



## Properties

| Name              | Description                                      |
|-------------------|--|
| Patrol Properties | Properties of a <a href="#">Patrol Profile</a> . |

## Next Steps

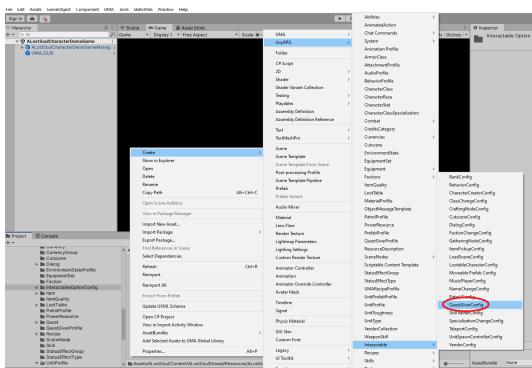
- Add a patrol config to a [Unit Profile](#) to allow triggering the patrol by interacting with the character.

## Quest Giver Config

A quest giver config creates a quest giver interactable option, allowing the player to start or turn in quests when they interact with the character.

# Creation

To create a quest giver config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose *Create > AnyRPG > Interactable > QuestGiverConfig*.



# Properties

| Name                      | Description   |
|---------------------------|---|
| Quests                    | A list of <a href="#">Quests</a> that can be started or turned in.  |
| Quest Giver Profile Names | A list of names of <a href="#">Quest Giver Profiles</a> , which contain shared lists of <a href="#">Quests</a> that can be re-used across different quest givers. |

# Next Steps

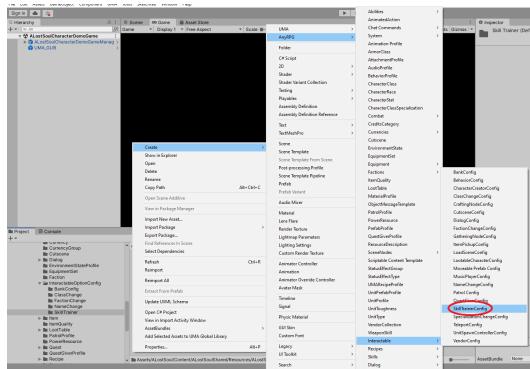
- Add a quest giver config to a [Unit Profile](#) to allow starting and turning in quests by interacting with the character.

# Skill Trainer Config

A skill trainer config creates a skill trainer interactable option, allowing the player to learn skills from the character.

## Creation

To create a skill trainer config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose *Create > AnyRPG > Interactable > SkillTrainerConfig*.



## Properties

| Name        | Description   |
|-------------|---|
| Skill Names | A list of names of <a href="#">Skills</a> that the skill trainer can train the player in. |

## Next Steps

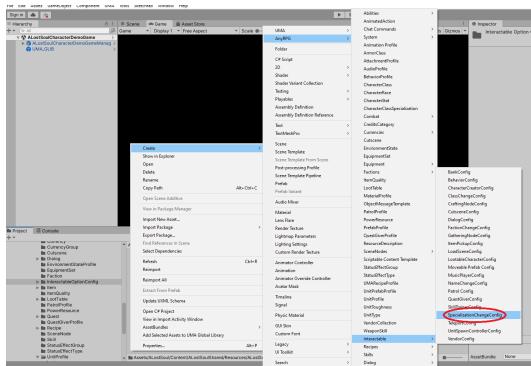
- Add a skill trainer config to a [Unit Profile](#) to allow the player to learn skills by interacting with the character.

## Specialization Change Config

A specialization change config creates a specialization change interactable option, allowing the player to change their class specialization by interacting with the character.

## Creation

To create a specialization change config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose *Create > AnyRPG > Interactable > SpecializationChangeConfig*.



## Properties

| Name                | Description   |
|---------------------|---|
| Specialization Name | The name of a <a href="#">Class Specialization</a> that the player can specialize in. |

## Next Steps

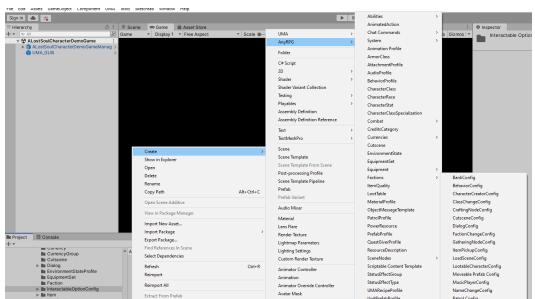
- Add a specialization change config to a [Unit Profile](#) to allow the player to change their class specialization by interacting with the character.

## Teleport Config

A teleport config creates a teleport interactable option, allowing the player to teleport to another scene by interacting with it.

## Creation

To create a teleport config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose *Create > AnyRPG > Interactable > TeleportConfig*.



## Properties

| Name                     | Description  |
|--------------------------|--|
| Location Tag             | The name of a tag to search for in the scene. If the tag is found, the player will spawn at the location of the GameObject with the tag. |
| Override Spawn Location  | If true, the player will spawn at the Vector3 location in the <i>Spawn Location</i> field.   |
| Spawn Location           | The Vector3 location the player will spawn at if the <i>Override Spawn Location</i> field is set to true.                                |
| Override Spawn Direction | If true the player will spawn with their forward direction set to the Vector3 direction in the <i>Spawn Forward Direction</i> field.     |
| Spawn Forward Direction  | The Vector3 direction that the player should be facing when they spawn if the <i>Override Spawn Direction</i> field is set to true.      |
| Ability Name             | The name of <a href="#">Teleport Ability</a> to cast.  |

## Next Steps

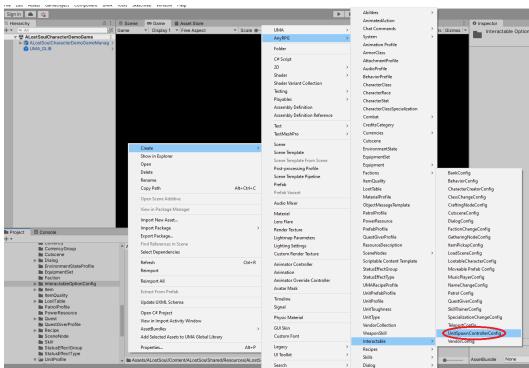
- Add a teleport config to an Interactable to allow the player to teleport to another scene by interacting with it.

## Unit Spawn Controller Config

A unit spawn controller config creates a unit spawn controller interactable option, allowing the player to spawn character units from a popup window.

## Creation

To create a unit spawn controller config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose *Create > AnyRPG > Interactable > UnitSpawnControllerConfig*.



## Properties

| Name                 | Description   |
|----------------------|---|
| Unit Profile Names   | A list of names of <a href="#">Unit Profiles</a> that can be spawned. |
| Unit Spawn Node List | A list of Unit Spawn Nodes where the character units will be spawned. |

## Next Steps

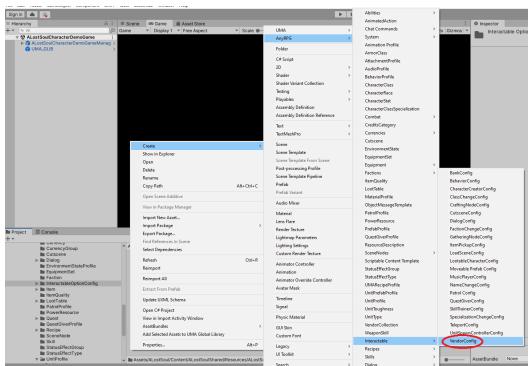
- Add a unit spawn controller config to an Interactable to allow spawning character units when interacting with it.

## Vendor Config

A vendor config creates a vendor interactable option, allowing the player to buy or sell items when interacting with the character.

## Creation

To create a vendor config, find (or create) the `GameName/Resources/GameName/InteractableOptionConfig` folder in the project tab and right click. Choose *Create > AnyRPG > Interactable > VendorConfig*.



## Properties

| Name                    | Description   |
|-------------------------|---|
| Vendor Collection Names | A list <b>Vendor Collections</b> , which contain lists of <b>Items</b> that can be purchased. |

## Next Steps

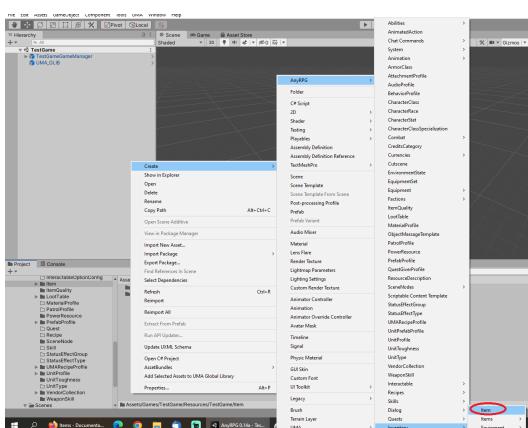
- Add a vendor config to a **Unit Profile** to allow buying and selling **Items** by interacting with the character.

## Items

Items are objects that can be placed in the character inventory.

## Creation

To create an item, find (or create) the **GameName/Resources/GameName/Item** folder in the project tab and right click. Choose **Create > AnyRPG > Inventory > Item**.

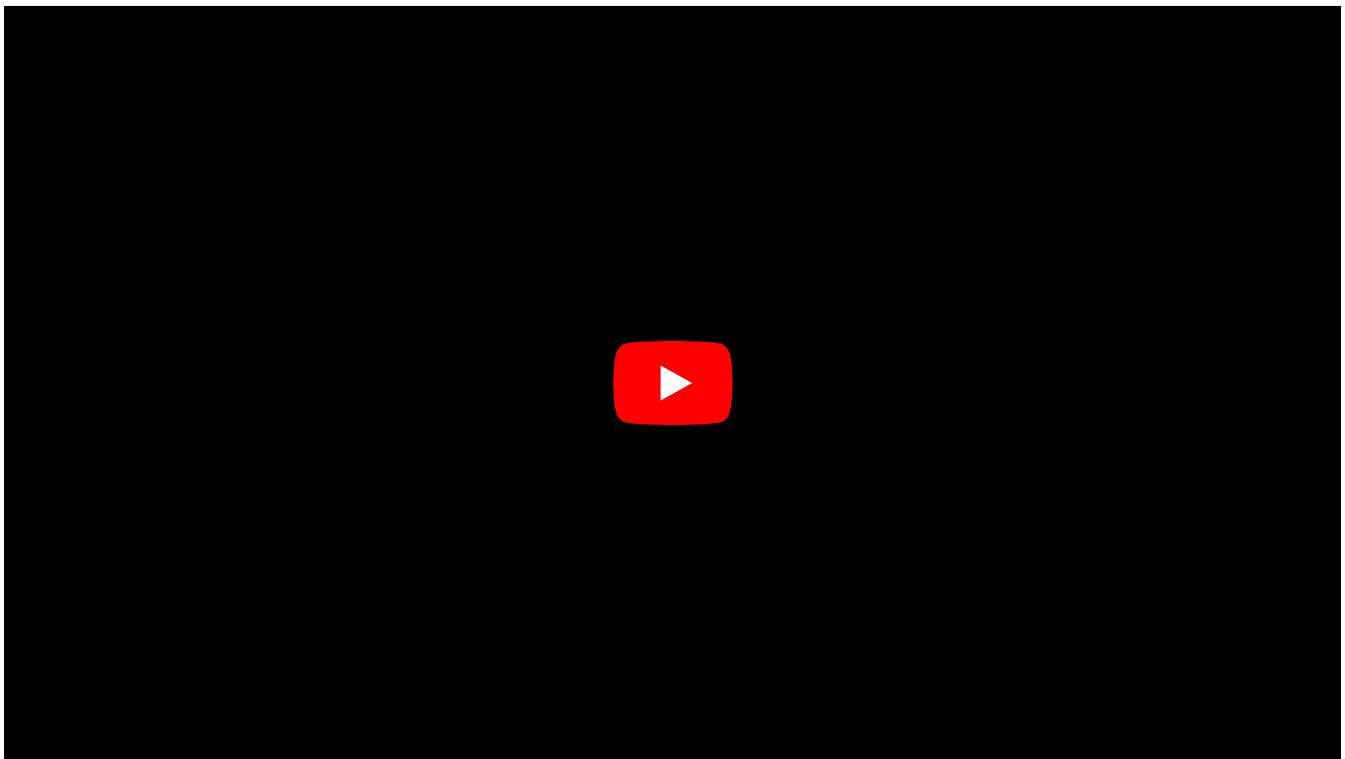


## Properties

| Name                             | Description   |
|----------------------------------|---|
| Stack Size                       | The number of this type of item that can fit in a single inventory slot.  |
| Item Quality                     | The quality of the item. See <a href="#">Item Quality</a> .   |
| Random Item Quality              | If true, this item will be assigned a random item quality when purchased, crafted, or looted.   |
| Dynamic Level                    | If true, This item will scale in level so that it is the same level as the character.   |
| Freeze Drop Level                | If true, and the item also has dynamic level set to true, the item level will be frozen at whatever level was when purchased, crafted, or looted.   |
| Level Cap                        | For dynamic level items, the maximum level it can scale up to. 0 means no limit.  |
| Item Level                       | If the item is not dynamic level, then it will be fixed at this level.  |
| Use Level                        | The level that the character has to be to use this item. This field does not apply to items that have no direct use, such as crafting ingredients.  |
| Currency Name                    | The currency that is required to purchase the item<br>See <a href="#">Currency</a> .  |
| Dynamic Currency Amount          | If true, the purchase and sale price will scale with level.   |
| Price Per Level                  | If dynamic currency amount is true, this is the amount per level this item will cost.   |
| Base Price                       | The base item price. If dynamic currency amount true, this price is added to the dynamic price.   |
| Unique Item                      | If true, the character cannot have more than one of these items in their inventory or bank.   |
| Character Class Requirement List | If this list is not empty, the character must be one of the listed character classes to use or equip this item, and for the item to be dropped if the loot table is configured to match this restriction. See <a href="#">Character Class</a> . |

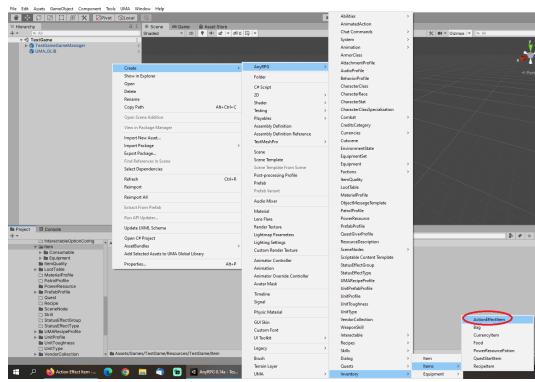
## Action Effect Item

Action effect items perform an animated action and cast an ability effect when used. They are commonly used as flasks and scrolls.



## Creation

To create an action effect item, find (or create) the *GameName/Resources/GameName/Item* folder in the project tab and right click. Choose *Create > AnyRPG > Inventory > Items > Action Effect Item*.



## Properties

Action effect Items are a type of item. See [Items](#) for their base properties.

| Name              | Description  |
|-------------------|--|
| Tool Tip          | This text will appear in the tooltip "Use:" section and describes what the item does when used.  |
| Cool Down         | The time in seconds that must pass after using this item before another item of the same type can be used again.   |
| Action Type       | <b>None</b><br>This item will not cause the character to perform any action when used.<br><b>Inline</b><br>The action properties will be defined directly.<br><b>Named</b><br>The action properties defined by the named <a href="#">Animated Action</a> will be performed by the character. |
| Action Name       | The name of an <a href="#">Animated Action</a> the character will perform when the item is used.   |
| Action Properties | <a href="#">Animated Action</a> properties defined directly on this item that the character will perform when the item is used.  |
| Use Inline Effect | If true, the effect properties defined in the Inline Effect field will be cast.  |
| Effect Name       | If <i>Inline Effect</i> is false the Ability Effect with this name will be cast.   |
| Inline Effect     | Ability Effect properties to cast when the item is used if <i>Use Inline Effect</i> is true.   |

## Next Steps

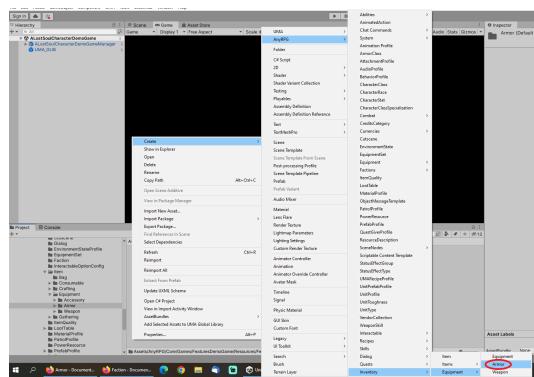
- Add an action effect item to a [Vendor Collection](#) so it can be purchased from a [Vendor](#).
- Add an action effect item to a [Loot Table](#) so that it can drop upon defeat of an enemy.
- Add an action effect item as an output to a [Recipe](#) so that it can be crafted.

# Armor

Armor is wearable equipment that can have an armor class associated with it, optionally restricting who can wear it based on their known armor skills.

## Creation

To create a faction, find (or create) the `GameName/Resources/GameName/Item/Equipment` folder (or any subfolder of that folder) in the project tab and right click. Choose *Create > AnyRPG > Inventory > Equipment > Armor*.



## Properties

In addition to the properties shared by all [Equipment](#), armor has the following unique properties.

| Name                | Description   |
|---------------------|---|
| Require Armor Class | If true, this armor can only be equipped if the character knows the <a href="#">Armor Class</a> in the <i>Armor Class Name</i> field. |
| Armor Class Name    | The name of the <a href="#">Armor Class</a> that this armor gets its armor properties from.   |

## Next Steps

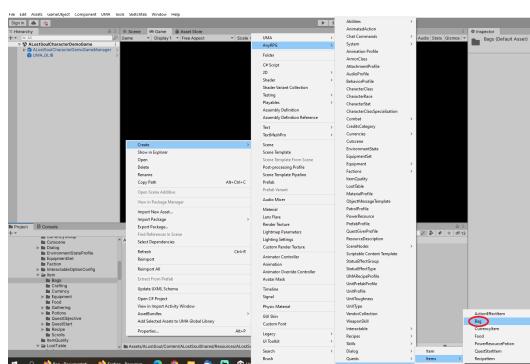
- Configure a [Unit Profile's Equipment Name List](#) to provide this armor to newly created characters.
- Configure a [Character Class' Equipment Names](#) list to provide this armor to newly created characters of that class.
- Configure a [Character Race's Equipment Names](#) list to provide this armor to newly created characters of that race.
- Configure a [Class Specialization's Equipment Names](#) list to provide this armor to a newly created characters of that specialization.
- Add armor to a [Loot Table](#) so that it can drop when an enemy is defeated.
- Add armor to a [Vendor Collection](#) and make it available on a vendor.
- Add armor to an [Equipment Set](#) to give it unique set bonuses when one or more pieces of a set are equipped.
- Add armor as an output to a [Recipe](#) so that it can be crafted.

## Bag

A bag is a type of item that can expand a player's inventory space or bank space when equipped.

## Creation

To create a bag, find (or create) the `GameName/Resources/GameName/Item` folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Inventory > Items > Bag*.



## Properties

In addition to the properties shared by all [Items](#), bags have the following unique properties.

| Name  | Description   |
|-------|---|
| Slots | The number of spaces the inventory (or bank) will be expanded by when this bag is equipped. |

## Next Steps

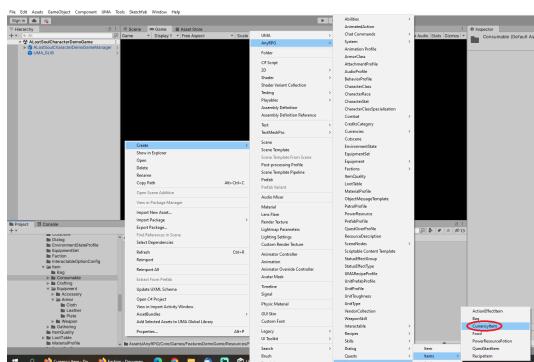
- Configure the *Default Backpack Item* field in the System Configuration Manager of a game to make this bag the default backpack for a new player.
- Add a bag to a [Vendor Collection](#) so it can be purchased from a [Vendor](#).
- Add a bag to a [Loot Table](#) so that it can drop upon defeat of an enemy.
- Add a bag as an output of a [Recipe](#) so it can be crafted.

## Currency Item

A currency item is an item that provides a specific amount of a specific currency to a player when used.

## Creation

To create a currency item, find (or create) the *GameName/Resources/GameName/Item* folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Inventory > Items > Currency Item*.



## Properties

In addition to the properties shared by all [Items](#), currency items have the following unique properties.

| Name                 | Description  |
|----------------------|--|
| Gain Currency Name   | The name of the <a href="#">Currency</a> that will be gained upon use.   |
| Gain Currency Amount | The amount of the <a href="#">Currency</a> that will be gained upon use. |

## Next Steps

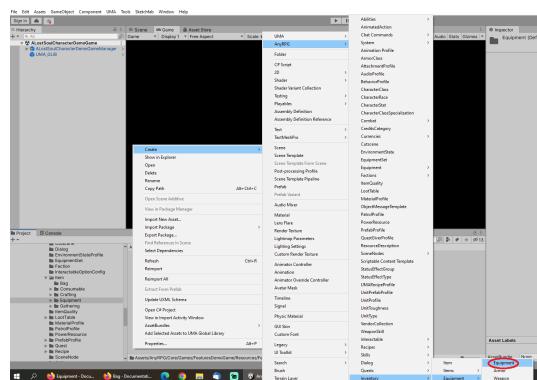
- Add a currency item to a [Vendor Collection](#) so it can be purchased from a [Vendor](#).
- Add a currency item to a [Loot Table](#) so that it can drop upon defeat of an enemy.

## Equipment

Equipment is any type of item that can be equipped on a character.

## Creation

To create equipment, find (or create) the `GameName/Resources/GameName/Item/Equipment` folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Inventory > Equipment > Equipment*.



## Properties

In addition to the properties shared by all [Items](#), equipment has the following unique properties.

| Name                    | Description   |
|-------------------------|---|
| Equipment Slot Type     | The <a href="#">Equipment Slot Type</a> of this equipment.  |
| Equipment Set Name      | The name of any <a href="#">Equipment Set</a> that this equipment belongs to.                                   |
| Uma Recipe Profile Name | The name of a shared <a href="#">UMA Recipe Profile</a> for this equipment, which defines which UMA recipe(s) w |

|                               |   |
|-------------------------------|---|
| UMA Recipe Profile Properties | <p>be shown on a character when this equipment is equipped. Properties of an <a href="#">UMA Recipe Profile</a> that only apply to this equipment, which define which UMA recipe(s) will be shown on a character when this equipment is equipped.</p>   |
| Holdable Object List          | <p>A list of attachment nodes, which define any physical GameObjects that will be attached to the character when this equipment is equipped.</p> <p><b>Equipment Slot Profile Name</b><br/>The name of an <a href="#">Equipment Slot Profile</a></p> <p><b>Holdable Object Name</b><br/>The name of a <a href="#">Prefab Profile</a> which contains a link to a GameObject to show when the equipment is equipped in the <a href="#">Equipment Slot Profile</a> of the above property.</p> <p><b>Use Universal Attachment</b><br/>If true, ignore any attachment points in the <a href="#">Prefab Profile</a> and use the named attachments below.</p> <p><b>Primary Attachment Name</b><br/>The <i>Node Name</i> of an <a href="#">Attachment Point Node</a> in a <a href="#">Attachment Profile</a> to use when this equipment is equipped, but not held.</p> <p><b>Unsheathed Attachment Name</b><br/>The <i>Node Name</i> of an <a href="#">Attachment Point Node</a> in a <a href="#">Attachment Profile</a> to use when this equipment is equipped, and held.</p> |
| Use Armor Modifier            | If true, this item will provide the wearer with armor.  |
| Use Manual Armor              | If true, the armor value must be input manually and will not be calculated based on armor class and item level.   |
| Manual Value Is Scale         | If true, the manual value is per level, instead of a total.   |
| Armor Modifier                | The amount of armor to provide if the manual settings were used.  |
| Primary Stats                 | <p>A list of <a href="#">Character Stats</a> and values that this armor will provide when equipped.</p> <p><b>Stat Name</b><br/>The name of a <a href="#">Character Stat</a> to provide when equipped.</p> <p><b>Use Manual Value</b><br/>If true, the stat value entered in the <i>Manual Modifier Value</i> field will be used instead of an automatically scaled value, based on item level and <a href="#">Item Quality</a>.</p> <p><b>Manual Modifier Value</b></p>  |

|                        |  |
|------------------------|--|
|                        | If <i>Use Manual Value</i> is true, the value in this field will be used.  |
| Random Secondary Stats | If true, the Secondary Stats will be chosen randomly up to a limit defined by the <a href="#">Item Quality</a> in the <i>Item Quality</i> field.   |
| Secondary Stats        | <p>A list of secondary stats and amounts of those stats that will be provided when the equipment is equipped.</p> <p><b>Secondary Stat</b><br/>The secondary stat to provide when the equipment is equipped.</p> <p><b>Base Amount</b><br/>An amount of the <i>Secondary Stat</i> to provide that is constant and does not scale with level.</p> <p><b>Amount Per Level</b><br/>An amount of the <i>Secondary Stat</i> to provide per level.</p> <p><b>Base Multiplier</b><br/>After amount values are added together, they will be multiplied by this number.</p> |
| On Equip Ability Name  | The name of an <a href="#">Ability</a> that will be cast automatically when the equipment is equipped.   |
| Learned Ability Names  | A list of names of <a href="#">Abilities</a> that will be learned when the equipment is equipped, and unlearned when the equipment is unequipped.  |

## Next Steps

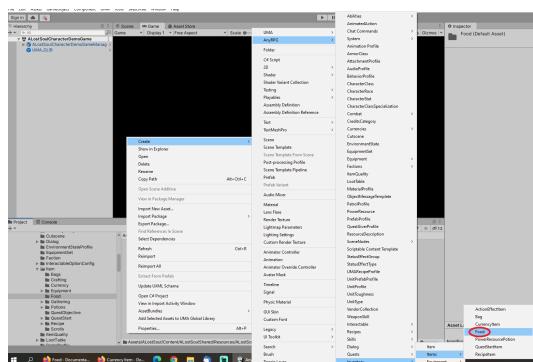
- Configure a [Unit Profile](#)'s *Equipment Name List* to provide this equipment to newly created characters.
- Configure a [Character Class](#)'s *Equipment Names* list to provide this equipment to newly created characters of that class.
- Configure a [Character Race](#)'s *Equipment Names* list to provide this equipment to newly created characters of that race.
- Configure a [Class Specialization](#)'s *Equipment Names* list to provide this equipment to a newly created characters of that specialization.
- Add equipment to a [Loot Table](#) so that it can drop when an enemy is defeated.
- Add equipment to a [Vendor Collection](#) and make it available on a vendor.
- Add equipment to an [Equipment Set](#) to give it unique set bonuses when one or more pieces of a set are equipped.
- Add equipment as an output to a [Recipe](#) so that it can be crafted.

# Food

Food is a type of resource that is consumed on use and can restore power resources and cast status effects to buff the user.

## Creation

To create food, find (or create) the *GameName/Resources/GameName/Item* folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Inventory > Items > Food*.



## Properties

In addition to the properties shared by all [Items](#), food has the following unique properties.

| Name                 | Description  |
|----------------------|--|
| Consumption Verb     | The verb to use in the casting tip.  |
| Holdable Object List | A list of <a href="#">PrefabProfiles</a> that contain links to GameObjects that will be held while the food is being consumed.<br><b>Holdable Object Name</b><br>The name of a <a href="#">PrefabProfile</a> that contains a link to a GameObject.<br><b>Use Universal Attachment</b><br>If true, attachment points from the <a href="#">PrefabProfile</a> will be ignored, and the universal attachment in the <i>Attachment Name</i> field will be used.<br><b>Attachment Name</b> |

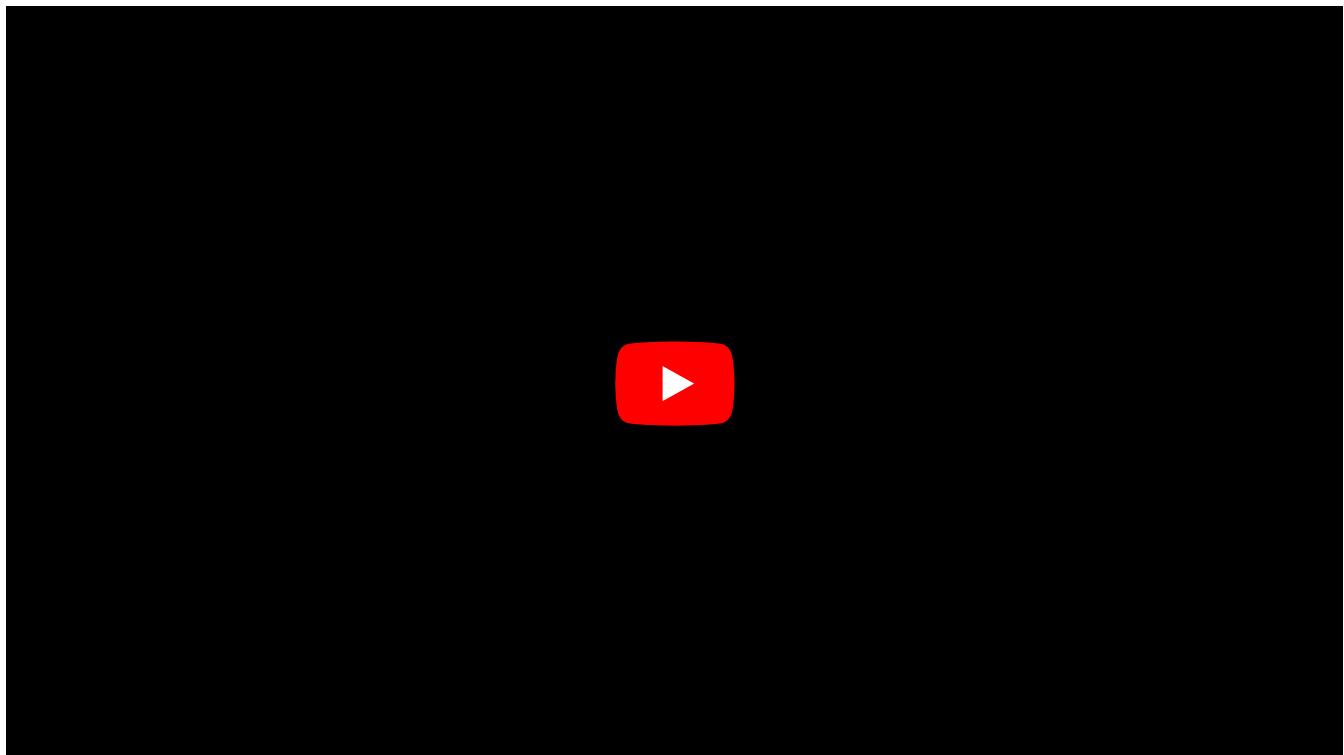
|                            |   |
|----------------------------|---|
|                            | The <i>Node Name</i> field from one of the <i>Attachment Point Nodes</i> in an <a href="#">Attachment Profile</a> .   |
| Animation Clip             | An animation clip to play while the food is being consumed.   |
| Animation Profile Name     | The name of an <a href="#">Animation Profile</a> that contains an animation clip to play while the food is being consumed.  |
| Casting Audio Clip         | An audio clip to play while the food is being consumed.   |
| Casting Audio Profile Name | The name of an <a href="#">Audio Profile</a> that contains an audio clip to play while the food is being consumed.  |
| Tick Rate                  | The number of seconds that should elapse between each tick, where <a href="#">Power Resources</a> from the <i>Resource Amounts</i> list are restored while eating.  |
| Resource Amounts           | <p>A list of <a href="#">Power Resources</a> and the amounts to restore while eating.</p> <p><b>Resource Name</b><br/>The name of a <a href="#">Power Resource</a>.</p> <p><b>Min Amount</b><br/>If the amount is lower than this value, it will be raised to this value.</p> <p><b>Base Amount</b><br/>Amount not scaled by level.</p> <p><b>Max Amount</b><br/>If the amount is higher than this value, it will be lowered to this value. 0 is unlimited.</p> |
| Status Effect              | A <a href="#">Status Effect</a> to cast on the user when the food is completely consumed.   |

## Next Steps

- Add food to a [Vendor Collection](#) so it can be purchased from a [Vendor](#).
- Add food to a [Loot Table](#) so that it can drop upon defeat of an enemy.
- Add food as an output to a [Recipe](#) so that it can be crafted.

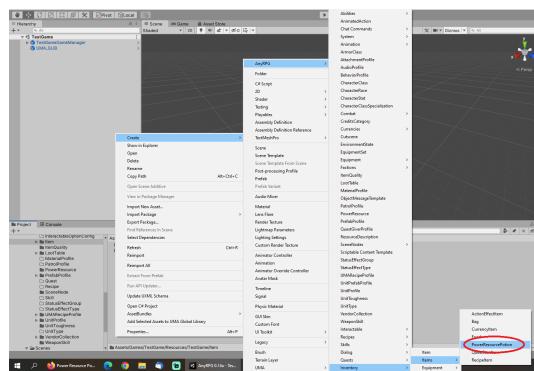
## Power Resource Potion

Power resource potions refill power resources and perform animated actions.



## Creation

To create a power resource potion, find (or create) the *GameName/Resources/GameName/Item* folder in the project tab and right click. Choose *Create > AnyRPG > Inventory > Items > Power Resource Potion*.



## Properties

Power resource potions are a type of item. See [Items](#) for their base properties.

| Name | Description   |
|------|---|
|      | This text will appear in the tooltip "Use:" section |

|                   |  |
|-------------------|--|
| Tool Tip          | and describes what the item does when used.  |
| Cool Down         | The time in seconds that must pass after using this item before another item of the same type can be used again.   |
| Action Type       | <p><b>None</b><br/>This item will not cause the character to perform any action when used.</p> <p><b>Inline</b><br/>The action properties will be defined directly.</p> <p><b>Named</b><br/>The action properties defined by the named <a href="#">Animated Action</a> will be performed by the character.</p> |
| Action Name       | The name of an <a href="#">Animated Action</a> the character will perform when the item is used.   |
| Action Properties | <a href="#">Animated Action</a> properties defined directly on this item that the character will perform when the item is used.  |
| Resource Amounts  | A list of <a href="#">Power Resources</a> and the amounts of each that will be refilled when this item is used.  |

## Next Steps

- Add a power resource potion to a [Vendor Collection](#) so it can be purchased from a [Vendor](#).
- Add a power resource potion to a [Loot Table](#) so that it can drop upon defeat of an enemy.
- Add a power resource potion as an output to a [Recipe](#) so that it can be crafted.

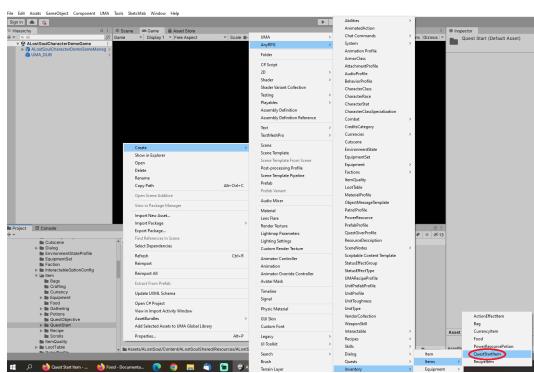
## Quest Start Item

A quest start item is an item that can start a quest when used.

## Creation

To create a quest start item, find (or create) the *GameName/Resources/GameName/Item* folder (or any

subfolder) in the project tab and right click. Choose *Create > AnyRPG > Inventory > Items > QuestStartItem*.



## Properties

In addition to the properties shared by all [Items](#), quest start items have the following unique properties.

| Name   | Description  |
|--------|--|
| Quests | A list of <a href="#">Quests</a> that the item can start.<br><b>Start Quest</b><br>This should always be true to allow the item to start the <a href="#">Quest</a> in the <a href="#">Quest Name</a> field.<br><b>End Quest</b><br>If true, the <a href="#">Quest</a> can be auto-completed upon starting.<br><b>Quest Name</b><br>The name of the <a href="#">Quest</a> to start when the item is used. |

## Next Steps

- Add a quest start item to a [Vendor Collection](#) so it can be purchased from a [Vendor](#).
- Add a quest start item to a [Loot Table](#) so that it can drop upon defeat of an enemy.

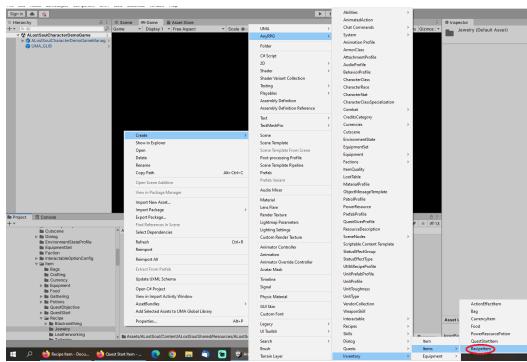
## Recipe Item

A recipe item is an item that reaches the player a recipe when used.

## Creation

To create a recipe item, find (or create) the `GameName/Resources/GameName/Item` folder (or any

subfolder) in the project tab and right click. Choose *Create > AnyRPG > Inventory > Items > RecipeItem*.



## Properties

In addition to the properties shared by all [Items](#), recipe items have the following unique properties.

| Name        | Description  |
|-------------|--|
| Recipe Name | The name of a <a href="#">Recipe</a> to learn when the item is used. |

## Next Steps

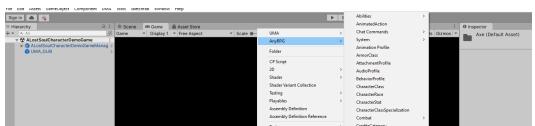
- Add a recipe item to a [Vendor Collection](#) so it can be purchased from a [Vendor](#).
- Add a recipe item to a [Loot Table](#) so that it can drop upon defeat of an enemy.

## Weapon

A weapon is a type of equipment that does damage to an enemy when used.

## Creation

To create a weapon, find (or create) the *GameName/Resources/GameName/Item/Equipment* folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > Inventory > Equipment > Weapon*.



## Properties

In addition to the properties shared by all [Equipment](#), weapons have the following unique properties.

| Name                          | Description  |
|-------------------------------|--|
| Require Weapon Skill          | If true, the character must have a skill that matches the name in the <i>Weapon Type</i> field to use or equip this weapon.  |
| Weapon Type                   | The name of a <a href="#">Weapon Skill</a> . This filled in, the weapon can get some default properties from the skill. If <i>Require Weapon Skill</i> is true, the character will need to know this skill to equip and use the weapon.  |
| Default Hit Effects           | A list of <a href="#">Ability Effects</a> that will be cast on the target when the weapon does damage from a standard (auto) attack.   |
| On Hit Effects                | A list of <a href="#">Ability Effects</a> that will be cast on the target when the weapon does damage from any attack, including a standard (auto) attack.   |
| Animation Profile Name        | An <a href="#">Animation Profile</a> that can overwrite default animations to match the weapon.  |
| Default Hit Audio Profile     | An <a href="#">Audio Profile</a> that contains a link to an audio clip that can be played whenever any physical <a href="#">Ability</a> is cast while this weapon is equipped.   |
| Use Weapon Type Objects       | If true, any objects in the <i>Ability Animation Object List</i> and <i>Ability Object List</i> from the <i>Weapon Type</i> will be shown (held) when using this weapon to perform an attack.  |
| Ability Animation Object List | <p>A list of physical prefabs to attach to the character unit when this weapon is being animated during a attack. This could be arrows, special spell or glow effects, etc.</p> <p><b>Holdable Object Name</b></p> <p>The name of a <a href="#">PrefabProfile</a> that contains a link to a <a href="#">GameObject</a>.</p> <p><b>Use Universal Attachment</b></p> |

|                              |   |
|------------------------------|---|
|                              | <p>If true, attachment points from the <a href="#">PrefabProfile</a> will be ignored, and the universal attachment in the <i>Attachment Name</i> field will be used.</p> <p><b>Attachment Name</b></p> <p>The <i>Node Name</i> field from one of the <i>Attachment Point Nodes</i> in an <a href="#">Attachment Profile</a>.</p> <hr/> <p>A list of physical prefabs to use when this weapon is being used after the animation phase of an attack. This could be arrows, special spell or glow effects, etc.</p> <p><b>Holdable Object Name</b></p> <p>The name of a <a href="#">PrefabProfile</a> that contains a link to a <i>GameObject</i>.</p> <p><b>Use Universal Attachment</b></p> <p>If true, attachment points from the <a href="#">PrefabProfile</a> will be ignored, and the universal attachment in the <i>Attachment Name</i> field will be used.</p> <p><b>Attachment Name</b></p> <p>The <i>Node Name</i> field from one of the <i>Attachment Point Nodes</i> in an <a href="#">Attachment Profile</a>.</p> |
| Ability Object List          |   |
| Add Scaled Damage Per Second | If true, automatic damage per second is added to any attack, based on the item level, item quality, and Weapon DPS Per Second setting in the Game Manager.  |
| Base Damage Per Second       | Base weapon damage per second, unscaled.  |

## Next Steps

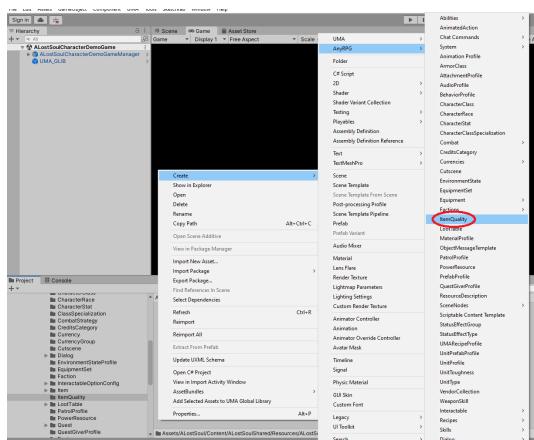
- Configure a [Unit Profile](#)'s *Equipment Name List* to provide this weapon to newly created characters.
- Configure a [Character Class](#)' *Equipment Names* list to provide this weapon to newly created characters of that class.
- Configure a [Character Race](#)'s *Equipment Names* list to provide this weapon to newly created characters of that race.
- Configure a [Class Specialization](#)'s *Equipment Names* list to provide this weapon to a newly created characters of that specialization.
- Add a weapon to a [Loot Table](#) so that it can drop when an enemy is defeated.
- Add a weapon to a [Vendor Collection](#) and make it available on a vendor.
- Add a weapon to an [Equipment Set](#) to give it unique set bonuses when one or more pieces of a set are equipped.
- Add a weapon as an output to a [Recipe](#) so that it can be crafted.

# Item Quality

An item quality can be assigned to an item, allowing that item to share similar settings with other items of the same quality like stat multipliers, icon background colors, and more.

## Creation

To create an item quality, find (or create) the *GameName/Resources/GameName/ItemQuality* folder in the project tab and right click. Choose *Create > AnyRPG > ItemQuality*.



## Properties

| Name               | Description   |
|--------------------|---|
| Stat Multiplier    | When an <a href="#">Item</a> does not have manual stats enable multiply the base automatic stats by this amount.  |
| Allow Random Items | If true, random <a href="#">Items</a> of this quality can be created  |
| Random Weight      | When a random item quality is chosen, all weights are added up before a number if chosen. This controls the chance an <a href="#">Item</a> of this quality will be created. A larger number in relation to other numbers of other item qualities will give a higher chance. |
|                    | If not empty, and an <a href="#">Item</a> of this quality is created  |

|                           |   |
|---------------------------|---|
| Random Quality Prefix     | randomly, this prefix will be added to the <a href="#">Item</a> name.   |
| Random Stat Count         | If an <a href="#">Item</a> of this quality is created with random stats, this is the number of random stats that will be chosen.                            |
| Dynamic Item Level        | If true, any <a href="#">Item</a> of this quality will automatically scale their level, regardless of whether they individually have level scaling enabled. |
| Buy Price Multiplier      | Multiply the base purchase price of any <a href="#">Item</a> of this quality by this amount.  |
| Sell Price Multiplier     | Multiply the base vendor sell price of any <a href="#">Item</a> with this quality by this amount.   |
| Require Sell Confirmation | If true, a popup window will appear asking the player to confirm any time they try to sell an <a href="#">Item</a> with this quality.                       |
| Quality Color             | The color that will be used for text and image backgrounds whenever an <a href="#">Item</a> of this quality is displayed in the UI.                         |
| Tint Background Image     | If true, the background image if an <a href="#">Item</a> displayed in the UI will have its color set to this color, instead of black.                       |

## Next Steps

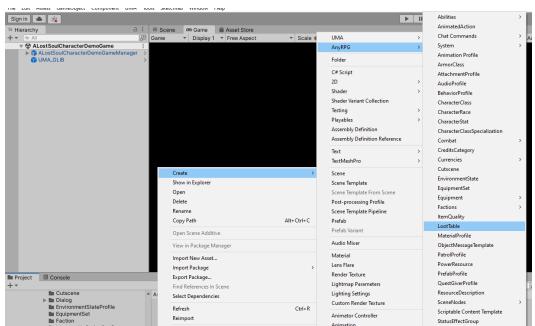
- Assign this item quality to an [Item](#).

## Loot Table

A loot table is a list of items that can drop from any lootable source such as characters, item pickups, and gathering nodes.

## Creation

To create a loot table, find (or create) the `GameName/Resources/GameName/LootTable` folder in the project tab and right click. Choose *Create > AnyRPG > LootTable*.



## Properties

| Name                     | Description   |
|--------------------------|---|
| Ignore Global Drop Limit | Any lootable source can have a global limit on the number of items dropped, no matter how many loc tables it has. If this option is true, that limit will be ignored, and the drop limit from this loot table will be used instead when rolling loot from this table. |
| Drop Limit               | If <i>Ignore Global Drop Limit</i> is true, this number will be the limit of the number of <a href="#">Items</a> dropped from this table.   |
| Loot Groups              | A list of <a href="#">Loot Groups</a> that shares drop chance and limit settings.   |

## Loot Groups

| Name                     | Description   |
|--------------------------|---|
| Guaranteed Drop          | If true, the number of <a href="#">Items</a> defined in the <i>Drop Limit</i> field for this group will be guaranteed to drop, using their <i>Drop Chance</i> as weights. |
| Group Chance             | The chance this group will attempt to drop <a href="#">Items</a> .  |
| Drop Limit               | The amount of <a href="#">Items</a> that can drop from this list. 0 is unlimited.   |
| Unique Limit             | The limit to the number of times the same <a href="#">Item</a> can drop. 0 is unlimited.  |
| Ignore Global Drop Limit | If true, the <a href="#">Items</a> on this list will ignore any parent drop limits.   |

## Loot

A list of [Items](#) that can drop.

## Loot

| Name                    | Description  |
|-------------------------|--|
| Item Name               | The name of an <a href="#">Item</a> that can drop.   |
| Drop Chance             | The percentage chance that this <a href="#">Item</a> can drop.   |
| Min Drops               | The minimum number of this <a href="#">Item</a> that will drop.  |
| Max Drops               | The maximum number of this <a href="#">Item</a> that will drop.  |
| Match Item Restrictions | If true, <a href="#">Character Class</a> restrictions on the item must match for it to drop. This is useful to prevent items from dropping that do not match the player's current class. |
| Prerequisite Conditions | A list of <a href="#">Prerequisite Conditions</a> that must be met for this item to drop.  |

## Next Steps

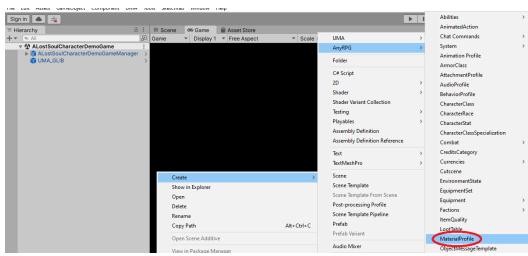
- Add a loot table to a [Unit Profile](#).
- Add a loot table to Gathering Node.
- Add a loot table to an Item Pickup.
- Add a loot table to a [Scene Node](#).

## Material Profile

A material profile stores a link to a Unity material on disk.

## Creation

To create a material profile, find (or create) the `GameName/Resources/GameName/MaterialProfile` folder in the project tab and right click. Choose *Create > AnyRPG > MaterialProfile*.



## Properties

| Name            | Description                         |
|-----------------|-------------------------------------|
| Effect Material | A link to a Unity material on disk. |

## Next Steps

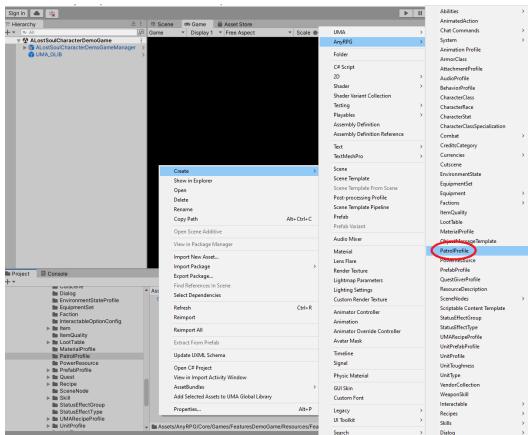
- Use a material profile to configure a skybox in an [Environment State Profile](#).
- Use a material profile in an [Ability Effect](#) to change the target material temporarily.

## Patrol Profile

A patrol profile defines where and how a character will patrol, including locations, timing, and speed.

## Creation

To create a material profile, find (or create) the `GameName/Resources/GameName/PatrolProfile` folder in the project tab and right click. Choose *Create > AnyRPG > PatrolProfile*.



## Properties

A patrol profile contains a single property, Patrol Properties, which consists of the following properties.

| Name                          | Description  |
|-------------------------------|--|
| Auto Start                    | If true, a character unit that uses this patrol will start the patrol automatically upon spawning or entering the patrol state.  |
| Destination List              | A list of Vector3 coordinates that the unit will patrol to.  |
| Use Tags                      | If true, the unit will patrol to the destinations in the Destination Tag List instead of the destination list. This is useful if the level geometry will change because it doesn't require re-creating the destination list. |
| Destination Tag List          | A list of tags. The current scene will be searched for these tags, and the unit will patrol to the location of the tags.   |
| Random Destinations           | If true, destinations will be chosen randomly from the active destination list, rather than visited sequentially in order.   |
| Loop Destinations             | If true, the patrol will continue indefinitely, re-starting at the first destination when the last destination is reached.   |
| Despawn On Completion         | If true, the unit will despawn when the last destination is reached.   |
| Max Destinations              | If set to any number other than 0 (infinite), the patrol will end after that number of destinations have been reached.   |
| Max Distance From Spawn Point | If the destination list is empty, and <i>Random Destinations</i> is set to true, a random location that is less than or equal to this number of meters from the spawn point will be chosen.                                  |
| Destination Pause Time        | The amount of time, in seconds, that a unit will pause at each destination before continuing to the next destination.  |

|                              |   |
|------------------------------|---|
| Movement Speed               | The speed, in meters per second, that the unit will travel at when patrolling.  |
| Save Position At Destination | If true, the unit will attempt to save its position when it reaches a destination. The next time a saved game is loaded, the unit will start at the saved position, instead of its usual spawn point. |

## Next Steps

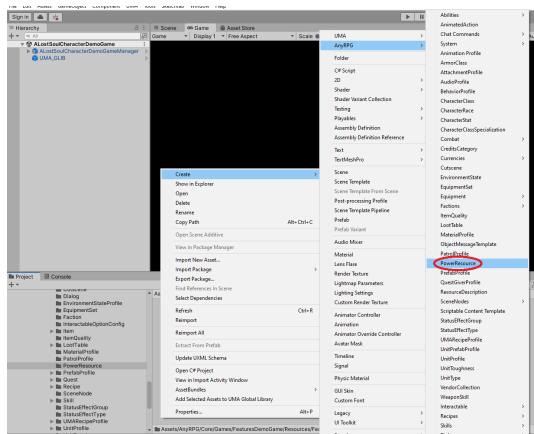
- Assign a Patrol Profile to a [Unit Profile](#).

## Power Resource

A power resource is any resource a character can use to cast abilities. This includes health, since it is possible to configure an ability to use up health upon casting.

## Creation

To create a power resource, find (or create) the `GameName/Resources/GameName/PowerResource` folder in the project tab and right click. Choose *Create > AnyRPG > PowerResource*.



## Properties

| Name          | Description   |
|---------------|---|
| Display Color | A color that will be used when displaying this resource in unit frames. |

|                         |   |
|-------------------------|---|
| Base Amount             | A base amount that all characters with this resource will receive.  |
| Amount Per Level        | Every character with this resource will have their maximum amount increased by this much for every level they gain.   |
| Tick Rate               | The number of seconds that should elapse between each regeneration of this resource.  |
| Amount Per Tick         | When not in combat and regeneration occurs, this amount will be restored (or used if the value is negative).  |
| Percent Per Tick        | When not in combat and regeneration occurs, this percentage of the maximum possible current value will be restored.   |
| Combat Amount Per Tick  | When in combat and regeneration occurs, this amount will be restored (or used if the value is negative).  |
| Combat Percent Per Tick | When in combat and regeneration occurs, this percentage of the maximum possible current value will be restored.   |
| Maximum Amount          | If this amount is greater than zero, the resource has a fixed maximum amount that will not change based on character level.                                       |
| Is Health               | If true, this is considered to be a health resource. When all of a character's health resources reach zero, they will die. Multiple health resources are allowed. |
| Fill On Reset           | If true, when the character evades, levels up, or spawns, this resource will be filled to its maximum amount.   |

## Next Steps

- Assign a power resource to a [Unit Profile](#).
- Assign a power resource to a [Character Class](#).
- Assign a power resource to a [Class Specialization](#).
- Assign a power resource to a [Unit Type](#).
- Assign a power resource to a [Character Race](#).
-

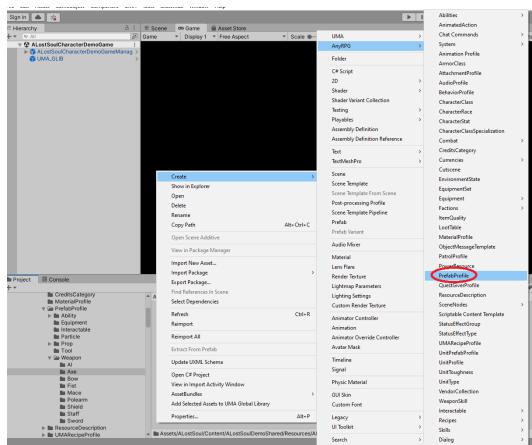
Assign a power resource to the System Configuration Manager, making it globally available to all characters.

## Prefab Profile

A prefab profile contains a link to a Unity Prefab and information about how to position and scale it relative to its parent.

## Creation

To create a prefab profile, find (or create) the `GameName/Resources/GameName/PrefabProfile` folder in the project tab and right click. Choose *Create > AnyRPG > PrefabProfile*.



## Properties

| Name               | Description   |
|--------------------|---|
| Prefab             | A link to a Unity Prefab to spawn.  |
| Position           | The Vector3 position of the <i>Prefab</i> relative to its parent, when held (unsheathed).                                 |
| Rotation Is Global | If true, the value in the <i>Rotation</i> property will be considered global, rather than local (relative to the parent). |
| Rotation           | The Vector3 rotation of the <i>Prefab</i> when held (unsheathed).   |
| Scale              | The Vector3 scale of the <i>Prefab</i> relative to the parent when held (unsheathed).                                     |

|                             |  |
|-----------------------------|--|
| Target Bone                 | The GameObject in the hierarchy to attach the <i>Prefab</i> to when held (unsheathed).   |
| Unsheath Audio Profile name | The name of an <a href="#">Audio Profile</a> that contains a link to an audio clip to play when the <i>Prefab</i> is moved to the unsheathed position. |
| Sheathed Position           | The Vector3 position of the <i>Prefab</i> relative to its parent, when sheathed.   |
| Sheathed Rotation           | The Vector3 rotation of the <i>Prefab</i> when sheathed  |
| Sheathed Scale              | The Vector3 scale of the <i>Prefab</i> relative to the parent when sheathed.   |
| Sheathed Target Bone        | The GameObject in the hierarchy to attach the <i>Prefab</i> to when sheathed.  |
| Sheath Audio Profile Name   | The name of an <a href="#">Audio Profile</a> that contains a link to an audio clip to play when the <i>Prefab</i> is moved to the sheathed position.   |
| Use Item Pickup             | If true, the following values will be used for item pickups instead of the default (sheathed) values.  |
| Pickup Position             | The Vector3 position of the <i>Prefab</i> relative to its parent, when used as an item pickup.   |
| Pickup Rotation             | The Vector3 rotation of the <i>Prefab</i> when used as an item pickup.   |
| Pickup Scale                | The Vector3 scale of the <i>Prefab</i> relative to the parent when used as an item pickup.   |

## Next Steps

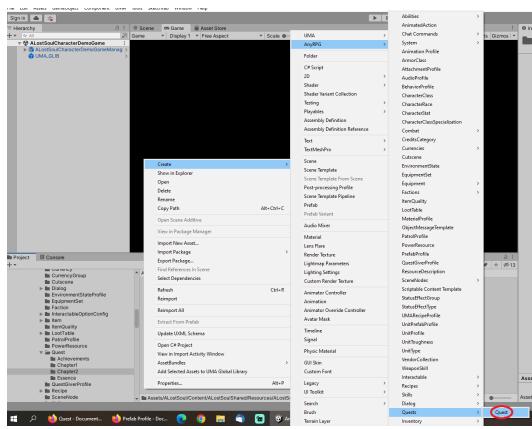
- Use prefab profile for an [Equipment](#) model.
- Use a prefab profile for a [Weapon](#) model.
- Use a prefab profile for an [Armor](#) model.
- Use a prefab profile for a character model of a [Unit Profile](#).
- Use a prefab profile for a [Gathering Node](#).
- Use a prefab profile for a [Mount](#).
- Use a prefab profile for a [Projectile](#).
- Use a prefab profile for a [Status Effect](#).
- Use a prefab profile for a casting effect of an [Ability](#).

# Quest

A quest is a type of mission that a player can undertake in order to complete objectives to gain experience, currency, or other types of rewards.

## Creation

To create a quest, find (or create) the *GameName/Resources/GameName/Quest* folder in the project tab and right click. Choose *Create > AnyRPG > Quests > Quest*.



## Properties

| Name               | Description   |
|--------------------|---|
| Is Achievement     | If true, this quest will be automatically tracked invisibly without appearing in the quest log, and appear in the achievements UI window when complete. |
| Repeatable Quest   | If true, the quest can be accepted and completed more than once.  |
| Has Opening Dialog | If true, a Dialog with the same name as the quest will be used (if found) and will be required to be completed before the quest can be accepted.        |
| Experience Level   | The level that is considered appropriate for the quest. This value is used to calculate experience  |

|                             |  |
|-----------------------------|--|
| Experience Level            | reward reduction if the player is a higher level than this value.  |
| Dynamic Level               | If true, the quest will always be considered to be the same level as the player.   |
| Extra Levels                | If dynamic level is true, this value can be used to make the quest a higher level than the player.   |
| Base Experience Reward      | The base experience for the quest, not scaled by level, and in addition to any automatic quest xp configured at the game level (in the System Configuration Manager).  |
| Experience Reward Per Level | The experience for the quest, scaled by level, and in addition to any automatic quest xp configured at the game level (in the System Configuration Manager).   |
| Automatic Currency Reward   | If true, the quest will reward <a href="#">Currency</a> based on the system quest currency reward settings (in the System Configuration Manager).  |
| Reward Currency Name        | The name of a <a href="#">Currency</a> that will be rewarded to the player when the quest is complete.   |
| Base Currency Reward        | The base <a href="#">Currency</a> reward for the quest, not scaled by level, and in addition to any automatic currency reward configured at the game level (in the System Configuration Manager).                                    |
| Currency Reward Per Level   | The <a href="#">Currency</a> rewarded for completing the quest, scaled by level, and in addition to any automatic <a href="#">Currency</a> reward configured at the game level (in the System Configuration Manager).                |
| Max Item Rewards            | The maximum number of <a href="#">Item</a> rewards that can be chosen, if there is more than one possible <a href="#">Item</a> reward.   |
| Item Reward Names           | The names of <a href="#">Items</a> that will be given as rewards for completing the quest.   |
| Max Faction Rewards         | The maximum number of <a href="#">Faction</a> rewards that can be chosen, if there is more than one possible <a href="#">Faction</a> reward.   |
| Faction Rewards             | A list of <a href="#">Faction</a> names and values that will be given as rewards for completing the quest.<br><b>Faction Name</b><br>The name of the <a href="#">Faction</a> whom the player will receive increased reputation with. |

|                         | <b>Reputation Amount</b><br>The amount of reputation to receive.   |
|-------------------------|--|
| Max Ability Rewards     | The maximum number of <a href="#">Ability</a> rewards that can be chosen, if there is more than one possible <a href="#">Ability</a> reward. |
| Ability Reward Names    | The names of <a href="#">Abilities</a> that will be given as rewards for completing the quest.   |
| Max Skill Rewards       | The maximum number of <a href="#">Skill</a> rewards that can be chosen, if there is more than one possible <a href="#">Skill</a> reward.     |
| Skill Reward Names      | The names of <a href="#">Skills</a> that will be given as rewards for completing the quest.  |
| Steps                   | A list of steps, with <a href="#">Objectives</a> for each step, that must be completed in order to finish the quest.                         |
| Prerequisite Conditions | A list of <a href="#">Prerequisite Conditions</a> that must be met to start the quest.   |
| Turn In Items           | If true, any items that are part of an Item Objective will be removed from the player inventory when the quest is turned in.                 |
| Allow Raw Complete      | If true, the player can complete the quest directly, without having the quest in the quest log.  |

## Quest Objectives

There are many different types of quest objectives which will be covered below. They all share the following properties.

| Name                  | Description  |
|-----------------------|--|
| Amount                | The amount of the specific objective that must be completed for the objective to be complete.  |
| Override Display Name | By default, the name of the specific objective will be shown in the quest log. If this field is not empty, the text shown in this field will be displayed instead. |

## Ability Objective

| Name         | Description  |
|--------------|--|
| Ability Name | The name of an <a href="#">Ability</a> that must be learned. |

## Require Use

If true, the [Ability](#) must be used, instead of learned

## Collect Objective

| Name          | Description   |
|---------------|---|
| Item Name     | The name of an <a href="#">Item</a> that must be collected.   |
| Partial Match | If true, the <i>Item Name</i> can be a substring of a long name and does not have to match the exact name and length. |

## Dialog Objective

| Name        | Description  |
|-------------|--|
| Dialog Name | The name of a <a href="#">Dialog</a> that must be completed. |

## Kill Objective

| Name        | Description  |
|-------------|--|
| Target Name | The name of an enemy that must be killed. This can match a character name or <a href="#">Faction</a> . |

## Quest Quest Objective

| Name       | Description   |
|------------|---|
| Quest Name | The name of another <a href="#">Quest</a> that must be completed. |

## Trade Skill Objective

| Name       | Description   |
|------------|---|
| Skill Name | The name of a <a href="#">Skill</a> that must be learned. |

## Use Interactable Objective

| Name | Description |
|------|-------------|
|      |             |

|                    |   |
|--------------------|---|
| Interactable Name  | The name of an <a href="#">Interactable</a> that must be used (interacted with).                                      |
| Require Completion | If true, and the interactable is of the type that open a popup window, the function the window provides must be used. |

## Visit Zone Objective

| Name      | Description   |
|-----------|---|
| Zone Name | The name of a <a href="#">Scene</a> that must be visited. |

## Next Steps

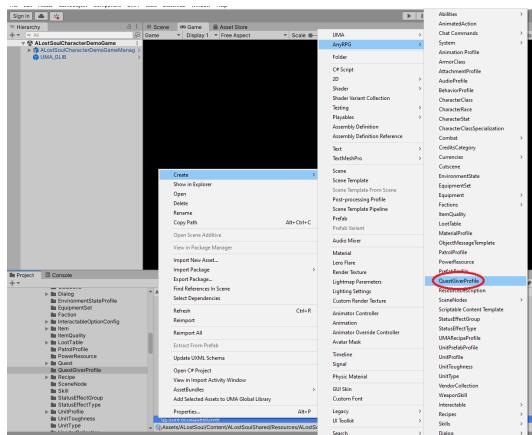
- Add a quest to a [Quest Start Item](#).
- Add a quest to a [Quest Giver](#).

## Quest Giver Profile

A quest giver profile is a shared configuration that allows multiple quest givers to have the same set of quests.

## Creation

To create a quest giver profile, find (or create) the `GameName/Resources/GameName/QuestGiverProfile` folder in the project tab and right click. Choose *Create > AnyRPG > QuestGiverProfile*.



# Properties

| Name   | Description  |
|--------|--|
| Quests | <p>A list of <a href="#">Quests</a> that the <a href="#">Quest Giver</a> can start or end.</p> <p><b>Start Quest</b></p> <p>If true, the <a href="#">Quest</a> can be started at the <a href="#">Quest Giver</a> using this profile.</p> <p><b>End Quest</b></p> <p>If true, the <a href="#">Quest</a> can be turned in at the <a href="#">Quest Giver</a> using this profile.</p> <p><b>Quest Name</b></p> <p>The name of the <a href="#">Quest</a> that can be started or turned in.</p> |

## Next Steps

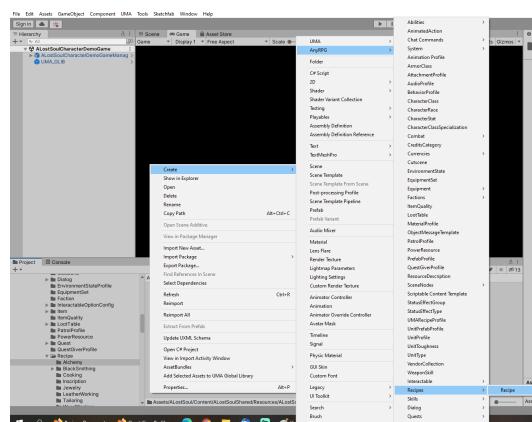
- Add a quest giver profile to a [Quest Giver](#).

## Recipe

A recipe is a list of inputs (ingredients) and outputs (finished products) that will be produced when crafting items.

## Creation

To create a recipe, find (or create) the `GameName/Resources/GameName/Recipe` folder in the project tab and right click. Choose *Create > AnyRPG > Recipes > Recipe*.



## Properties

| Name                 | Description  |
|----------------------|--|
| Auto Learn           | If true, this recipe is automatically learned at the appropriate level, defined in the <i>Required Level</i> field.  |
| Required Level       | The level the character must have reached to learn this recipe.  |
| Crafting Materials   | A list of <a href="#">Items</a> required for the recipe.<br><b>Item Name</b><br>The name of an <a href="#">Item</a> that will be used up when crafting this recipe.<br><b>Count</b><br>The number of <a href="#">Items</a> that are required.  |
| Item Output Name     | The name of the new <a href="#">Item</a> that will be created upon completing crafting.  |
| Output Count         | The number of new <a href="#">Items</a> that will be created upon completing crafting.   |
| Craft Ability Name   | The name of a <a href="#">Craft Ability</a> that must be known to craft this recipe.   |
| Holdable Object List | A list of <a href="#">PrefabProfiles</a> that contain links to GameObjects that will be held while the <a href="#">Item</a> is being crafted.<br><b>Holdable Object Name</b><br>The name of a <a href="#">PrefabProfile</a> that contains a link to a GameObject.<br><b>Use Universal Attachment</b><br>If true, attachment points from the <a href="#">PrefabProfile</a> will be ignored, and the universal attachment in the <i>Attachment Name</i> field will be used.<br><b>Attachment Name</b><br>The <i>Node Name</i> field from one of the <i>Attachment Point Nodes</i> in an <a href="#">Attachment Profile</a> . |

## Next Steps

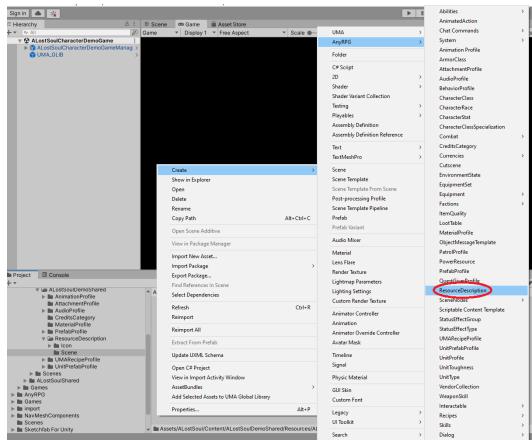
- Create [Items](#) to be used as inputs or outputs to crafting recipes.

# Resource Description

A Resource Description is a multi-purpose file that can be used to overwrite the display names and icons of other types of scriptable objects. It can also be used to support different languages.

# Creation

To create a resource description, find (or create) the *GameName/Resources/GameName/ResourceDescription* folder in the project tab and right click. Choose *Create > AnyRPG > ResourceDescription*.



# Properties

| Name          | Description   |
|---------------|---|
| Resource Name | This field is generally used as the lookup name (database key) when looking up a resource description.  |
| Display Name  | The text in this field will override the <i>Display Name</i> field of whatever scriptable object this resource description is being used for. |

|                       |  |
|-----------------------|--|
| Icon                  | The image linked in this field will override the <i>Icon</i> field of whatever scriptable object this resource description is being used for.                  |
| Icon Background Image | The image linked in this field will override the <i>Icon Background Image</i> field of whatever scriptable object this resource description is being used for. |
| Description           | The text in this field will override the <i>Description</i> field of whatever scriptable object this resource description is being used for.                   |

## Next Steps

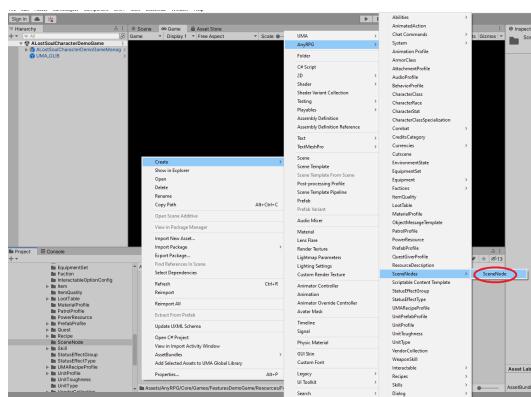
- Use a resource description to override settings in [Items](#).
- Use a resource description to override settings in [Abilities](#).
- Use a resource description to override the display name of a scene file.

## Scene Node

A scene node contains configuration information for a scene file, including background music and many other settings.

## Creation

To create a scene node, find (or create) the *GameName/Resources/GameName/SceneNode* folder in the project tab and right click. Choose *Create > AnyRPG > SceneNodes > SceneNode*.



## Properties

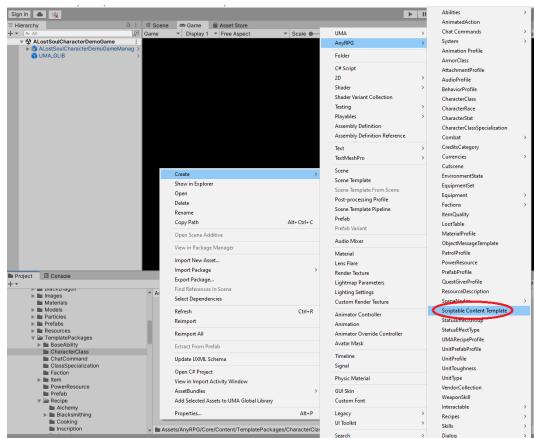
| Name                       | Description  |
|----------------------------|--|
| Use Regional File          | If true, look for the resource description with the same name as the resource, plus the string 'Scene' and use the <i>Display Name</i> field as the file name.   |
| Scene File                 | The name of the scene file, without a path, as it is found in the Unity Build Settings.  |
| Ambient Music Profile      | The name of an <a href="#">Audio Profile</a> that contains a link to an audio clip to be used as the ambient sounds when this scene is loaded.   |
| Background Music Profile   | The name of an <a href="#">Audio Profile</a> that contains a link to an audio clip to be used as the background music when this scene is loaded.   |
| Movement Loop Profile Name | The name of an <a href="#">Audio Profile</a> that contains a link to an audio clip to be used as the movement loop (footstep loop) when this scene is loaded.  |
| Movement Hit Profile Name  | The name of The name of an <a href="#">Audio Profile</a> that contains a link to an audio clip to be used as the footstep hit sounds when this scene is loaded.  |
| Allow Mount                | If true, the character can ride a mount in this scene.   |
| Suppress Character Spawn   | If true, the player will not be automatically spawned when this scene is loaded.   |
| Suppress Main Camera       | If true, the main camera will not active when this scene is loaded. This is useful if the scene will be used for a <a href="#">Cutscene</a> and there is already a <a href="#">Cutscene</a> camera in the scene. |
| Auto Play Cutscene Name    | The name of a <a href="#">Cutscene</a> to play automatically when this scene is loaded.  |
| Environment State Names    | The names of <a href="#">Environment State Profiles</a> that can apply to this scene.  |

## Scriptable Content Template

A scriptable content template is a list of scriptable objects, prefabs, and other scriptable content templates that can be installed in a new game using a wizard to save time.

## Creation

Unlike most scriptable objects, a scriptable content template itself is not loaded into memory because it contains configuration information for installing content. This means it can be created in any folder and should definitely not be located in a *Resources* folder or any subfolder of a resources folder. To create one, setup a folder that is not a child of a *Resources* folder and right click. Choose *Create > AnyRPG > Scriptable Content Template*.



## Properties

| Name         | Description  |
|--------------|--|
| Resources    | A list of links to scriptable objects that will be installed in a game when the wizard is used to install this template. If the word 'Template' exists in their file name, it will be removed when they are installed.   |
| Prefabs      | A list of links to prefabs that will be installed in a game when the wizard is used to install this template. If the word 'Template' exists in their file name, it will be removed when they are installed.  |
| Dependencies | A list of links to other scriptable content templates that will be installed in a game when the wizard is used to install this template. The use of dependencies is a convenience feature to allow reusing common sets of scriptable objects and prefabs between multiple templates. |

## Next Steps

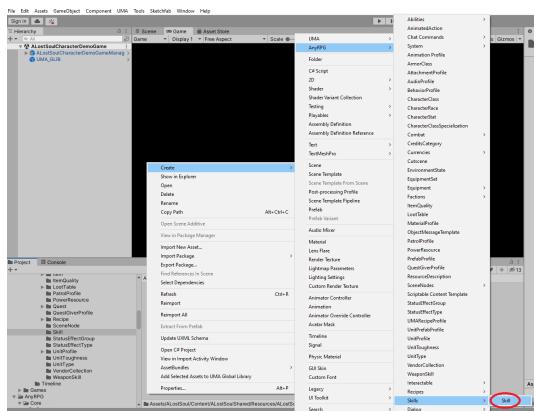
- Use the *Template Content Wizard*, found under the *Menu Tools > AnyRPG > Wizard > Template Content Wizard* to install template content in a new game.

# Skill

A skill allows you to learn abilities that let you gather or craft items.

## Creation

To create a skill, find (or create) the *GameName/Resources/GameName/Recipe* folder in the project tab and right click. Choose *Create > AnyRPG > Skills > Skill*.



## Properties

| Name           | Description   |
|----------------|---|
| Required Level | The minimum level which the character must reach to learn this skill.   |
| Auto Learn     | If true, this skill will be automatically learned upon reaching the <i>Required Level</i> .   |
| Ability Names  | A list of <a href="#">Abilities</a> that will be learned when the skill is learned. These should generally be <a href="#">Gathering Abilities</a> or <a href="#">Crafting Abilities</a> , but that is a suggestion, not a hard requirement. |

## Next Steps

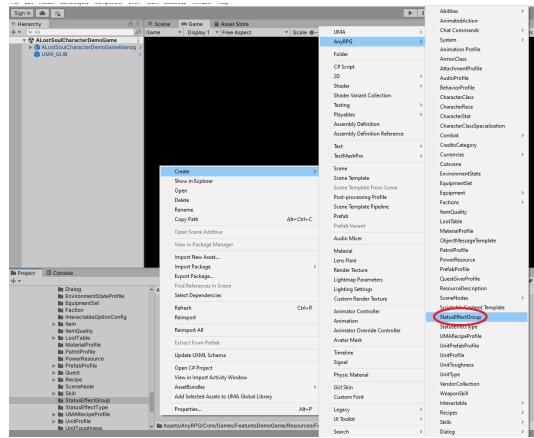
- Add a skill as a reward for completing a [Quest](#).
- Add a skill to a [Skill Trainer](#) so the trainer can teach it.

# Status Effect Group

A status effect group defines similar status effects, and prevents a character from having more than one effect from the group active at the same time.

## Creation

To create a status effect group, find (or create) the `GameName/Resources/GameName/StatusEffectGroup` folder in the project tab and right click. Choose *Create > AnyRPG > StatusEffectGroup*.



## Properties

| Name             | Description   |
|------------------|---|
| Exclusive Option | An enumeration of options controlling how <a href="#">Status Effects</a> are blocked or overwritten.<br><b>Last</b><br>The most recent effect always overwrites any earlier effects.<br><b>First</b><br>The first effect blocks any other effects from being applied. |

## Next Steps

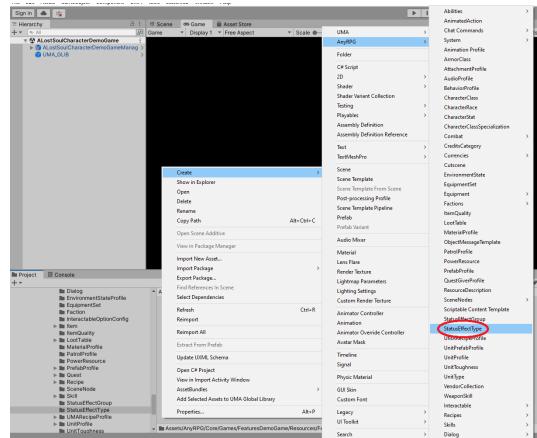
- Add a [Status Effect](#) to a group by filling in its *Status Effect Group* field.

# Status Effect Type

A status effect type classifies status effects into categories for the purpose of defining which type of remove effect can remove them.

## Creation

To create a status effect type, find (or create) the `GameName/Resources/GameName/StatusEffectType` folder in the project tab and right click. Choose *Create > AnyRPG > StatusEffectType*.



## Properties

Status effect types do not contain any additional properties beyond the basic [Scriptable Object](#) properties shared by all AnyRPG data.

## Next Steps

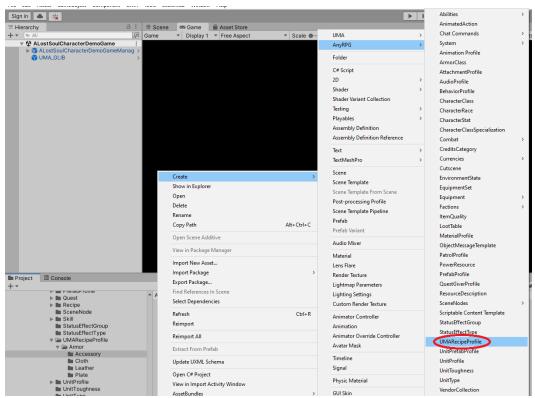
- Define a [Status Effect](#)'s type by filling in its *Status Effect Type* field.

## UMA Recipe Profile

An UMA recipe profile contains information about how UMA gear will be displayed, including which UMA recipes to show, and what shared colors to use.

## Creation

To create an UMA recipe profile, find (or create) the `GameName/Resources/GameName/UMARecipeProfile` folder (or any subfolder) in the project tab and right click. Choose *Create > AnyRPG > UMARecipeProfile*.



## Properties

An UMA recipe profile contains a single property, *UMA Recipe Profile Properties*, with the following fields.

| Name          | Description   |
|---------------|---|
| UMA Recipes   | A list of UMA recipes that can potentially be displayed. The recipes that match the target unit's UMA race will be displayed. If multiple recipes that match the race can be applied to the same slot, the last one will always be used.    |
| Shared Colors | A list of UMA shared color data defining which colors will be shown for each defined shared color name that exists on the UMA recipe.<br><b>Shared Colorname</b><br>The name of an UMA shared color.<br><b>Color</b><br>A color to be used. |

## Next Steps

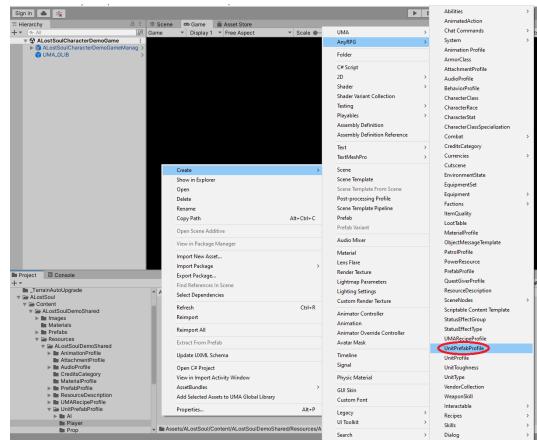
- Add an UMA recipe profile to any [Equipment](#).

## Unit Prefab Profile

A unit prefab profile contains information needed to configure the GameObject prefab that represents the character model for any character.

## Creation

To create a unit prefab profile, find (or create) the `GameName/Resources/GameName/UnitPrefabProfile` folder in the project tab and right click. Choose *Create > AnyRPG > UnitPrefabProfile*.



## Properties

| Name                       | Description  |
|----------------------------|--|
| Unit Prefab                | A link to a prefab that will be used for the character unit. The unit prefab does not have to, but can optionally, include a model.            |
| Model Prefab               | A link to a prefab that will be used for the character model if the model is separate from the <i>Unit Prefab</i> .                            |
| Animation Profile Name     | The name of an <a href="#">Animation Profile</a> that will be used for the model animations.   |
| Use Inline Animation Props | If true, the <i>Animation Props</i> field will be used for animation properties, instead of a shared <a href="#">Animation Profile</a> .       |
| Animation Props            | Inline properties of an <a href="#">Animation Profile</a> .  |
| Rotate Model               | If true, the model will be rotated to face in the direction of travel. This option should be used if no strafe animations exist for the model. |
| Name Plate Props           | Nameplate, unit frame, and unit preview settings. See <a href="#">Name Plate Properties</a> .  |
| Position                   | If being used as a mount, the Vector3 position in relation to the <i>Target Bone</i> the character will be mounted to when riding.             |
| Rotation Is Global         | If true, and being used as a mount, the value in the <i>Rotation</i> field will be considered global (relative to                              |

|                               |   |
|-------------------------------|---|
| Rotation                      | world space) instead of local.<br>If being used as a mount, the Vector3 rotation in relation to the <i>Target Bone</i> the character will be mounted to when riding.  |
| Scale                         | If being used as a mount, the Vector3 scale of the character when riding.   |
| Target Bone                   | If being used as a mount, the bone the character will be attached to when riding.   |
| Attachment Profile Name       | The <a href="#">Attachment Profile</a> used to lookup actual bone names when attaching prefabs (holdable objects) to the character model.   |
| Float Height                  | When floating in water, the height from the bottom of the character that the water line will sit at.  |
| Add Float Height To Transform | If true, the height of the <i>Float Transform</i> will be added to the <i>Float Height</i> . If false, the <i>Float Transform</i> height will replace the <i>Float Height</i> if the <i>Float Transform</i> is found. |
| Float Transform               | The name of a bone that should be used for the water line when floating.  |

## Name Plate Properties

| Name                          | Description   |
|-------------------------------|---|
| Display Name                  | The name that is printed on the nameplate above the character model. This value will also override whatever is set for the interactable mouseover display name. |
| Suppress Name Plate           | If true, no nameplate will be shown above this character.   |
| Suppress Faction              | If true, the faction will not be shown on the nameplate.  |
| Override Nameplate Position   | If true, the nameplate position will be shown at the manual value in the <i>Name Plate Position</i> field.  |
| Unit Frame Target             | The name of a bone that the camera will look at when taking a snapshot for the unit frame.  |
| Unit Frame Camera Look Offset | Any Vector3 offset that the camera will look at relative to the <i>Unit Frame Target</i> .  |
|                               | The position of the unit frame camera relative to th  |

|                                     |   |
|-------------------------------------|---|
| Unit Frame Camera Position Offset   | <i>Unit Frame Target.</i>   |
| Unit Preview Target                 | The name of a bone that the camera will look at when displaying the character in a full body unit preview window. |
| Unit Preview Camera Look Offset     | Any Vector3 offset that the camera will look at relative to the <i>Unit Preview Target</i> .                      |
| Unit Preview Camera Position Offset | The position of the unit preview camera relative to the <i>Unit Preview Target</i> .                              |

## Next Steps

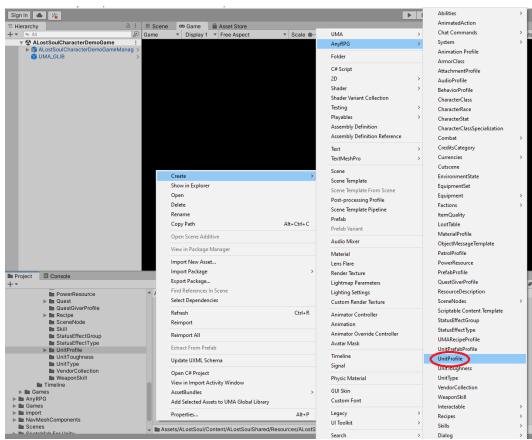
- Add a unit prefab profile to a [Unit Profile](#).

## Unit Profile

A unit profile defines all the information related to a character, including both the character configuration, and properties of the physical model.

## Creation

To create a unit profile, find (or create) the `GameName/Resources/GameName/UnitProfile` folder in the project tab and right click. Choose *Create > AnyRPG > UnitProfile*.



## Properties

The default properties of a character unit are listed below. Some of these properties can be overridden if this character is used as a player.

| Name                      | Description  |
|---------------------------|--|
| Automatic Prefab Profile  | If true, the unit prefab is loaded by searching for a <a href="#">UnitPrefabProfile</a> with the same name as this resource.   |
| Prefab Profile Name       | The name of the prefab profile that contains the prefab that represents this unit. Only used if <i>Automatic Prefab Profile</i> and <i>Use Inline Prefab Props</i> are not true. |
| Use Inline Prefab Props   | If true, the unit prefab is loaded from the inline <i>Unit Prefab Props</i> field.   |
| Unit Prefab Props         | <a href="#">Unit Prefab Profile</a> properties.  |
| Is UMA Unit               | Deprecated, not currently used.  |
| Is Pet                    | If true, this unit can be captured and kept as a pet.  |
| Flight Capable            | If true, this unit can fly.  |
| Glide Capable             | If true, this unit can glide.  |
| Character Name            | The name of the character, which will be shown in unit frames and nameplates.  |
| Title                     | A title that will be shown below the name in the nameplate.  |
| Faction Name              | The name of the <a href="#">Faction</a> that this character belongs to.  |
| Unit Type Name            | The name of the <a href="#">Unit Type</a> of this character.   |
| Character Race Name       | The name of the <a href="#">Character Race</a> of this character.  |
| Character Class Name      | The name of the <a href="#">Character Class</a> of this character  |
| Class Specialization Name | The name of the <a href="#">Class Specialization</a> of this character.  |
| Spawn Dead                | If true, the character will spawn dead.  |
| Prevent Auto Despawn      | If true, the character will not despawn when it does.  |
| Default Toughness         | The name of a <a href="#">Unit Toughness</a> that defines how tough the character is.  |
| Capabilities              | <a href="#">Capabilities</a> the character has.  |
| Is Aggressive             | If true, the unit will attack anything in its aggro radius, based on the <a href="#">Faction</a> relationship.   |

|                              |  |
|------------------------------|--|
| Aggro Radius                 | The radius of the aggro sphere around this unit. Set to 0 to disable aggro.  |
| Automatic Combat Strategy    | If true, a <a href="#">Combat Strategy</a> matching the unit name will be looked up, and used if found.  |
| Combat Strategy Name         | The name of a <a href="#">Combat Strategy</a> to use.  |
| Primary Stats                | A list of <a href="#">Character Stat General Properties</a> .  |
| Power Resources              | A list of <a href="#">Power Resources</a> the character has.   |
| Use Provider Equipment       | By default NPCs only equip the <a href="#">Equipment</a> listed in the <i>Equipment Name List</i> . If true, NPCs will equip all <a href="#">Equipment</a> from any provider, including <a href="#">Character Class</a> , <a href="#">Faction</a> , etc. |
| Equipment Name List          | A list of <a href="#">Equipment</a> that the character will have equipped by default.  |
| Face Interaction Target      | If true, and the character is an NPC, it will turn and face any player that interacts with it.   |
| Is Mobile                    | If true, the character can move.   |
| Play On Footstep             | If true, individual footstep sounds will play when the foot hits the ground, instead of playing a repeating footsteps loop when moving.  |
| Movement Audio Profile Names | A list of <a href="#">Audio Profiles</a> that contain audio clips that will be played when the unit is in motion. If <i>Play On Footstep</i> is true, the audio clips will be cycled through as the feet hit the ground.                                 |
| Use Inline Patrol            | If true, the patrol defined in the <i>Patrol Config</i> field will be used.  |
| Patrol Config                | <a href="#">Patrol</a> properties.   |
| Patrol Names                 | The names of <a href="#">Patrol Profiles</a> to use.   |
| Interaction Max Range        | The maximum range at which this character can be interacted with if it is an NPC.  |
| Interactable Options         | A list of named <a href="#">Interactable Options</a> that define which <a href="#">Interactables</a> this character has, if it is an NPC.  |
| Inline Interactable Options  | <a href="#">Interactable Option Configurations</a> that define which <a href="#">Interactables</a> this character has, if it is an NPC.  |
|                              | If true, the object position is saved so that the object   |

|                         |   |
|-------------------------|---|
| Persist Object Position | will spawn at the saved location next time a game is loaded. This requires at least one of <a href="#">Save On Level Unload</a> , <a href="#">Save On Game Save</a> , or a save setting in a <a href="#">Patrol</a> to be true. |
| Save On Level Unload    | If true, the position will be saved when a level is unloaded.   |
| Save On Game Save       | If true, the position will be saved when the game is saved.   |
| Overwrite Unit UUID     | If true, the automatic UUID assigned to the unit will be overwritten with the UUID in the <i>UUID</i> field.  |
| UUID                    | A automatically created Universally Unique Identifier used to ensure that all objects with saved position data do not overwrite another object's data.  |

## Next Steps

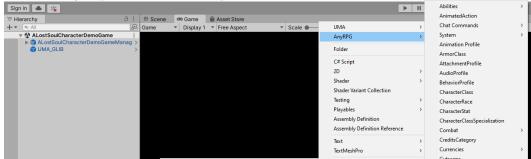
- Add a unit profile to the *Default Player Unit Profile Name* field in the System Configuration Manager to make this unit the default when a new game is started.
- Add a unit profile to the *Character Creator Profile Names* list in the System Configuration Manager to allow a player to choose this unit from a list of units when starting a new game.
- Add a unit profile to the *Character Creator Profile Names* list in a [Faction](#) to allow a player to choose this unit from a list of units when starting a new game as a specific [Faction](#).

## Unit Toughness

Unit Toughness defines which properties should be multiplied and by how much when scaling the base properties of a character to make it tougher.

## Creation

To create a unit toughness, find (or create) the *GameName/Resources/GameName/UnitToughness* folder in the project tab and right click. Choose *Create > AnyRPG > UnitToughness*.



## Properties

| Name                            | Description   |
|---------------------------------|---|
| Focus Projector Override Map    | <p>A list of properties that will override the default highlight circle shown on the ground when a character is highlighted.</p> <p><b>Source Color</b><br/>If the <a href="#">Faction</a> relationship color matches this color then the settings in this list element will be used.</p> <p><b>Projector Material</b><br/>The material to replace the default highlight image material.</p> <p><b>Tint Material</b><br/>If true, the <i>Projector Material</i> will also be tinted with the color.</p> |
| Currency Multiplier             | The amount that the total currency gained from a kill will be multiplied by.  |
| Experience Multiplier           | The amount that the total experience gained from kill will be multiplied by.  |
| Default Resource Multiplier     | All <a href="#">Power Resources</a> will be multiplied by this value.   |
| Resource Multipliers            | <p>A list of specific <a href="#">Power Resources</a> to multiply.</p> <p><b>Resource Name</b><br/>The name of a <a href="#">Power Resource</a> to multiply.</p> <p><b>Value Multiplier</b><br/>The amount to multiply the <a href="#">Power Resource</a> by.</p>   |
| Default Primary Stat Multiplier | The amount to multiply all <a href="#">Character Stats</a> by.  |
| Primary Stat Multipliers        | <p>A list of specific <a href="#">Character Stats</a> to multiply.</p> <p><b>Stat Name</b><br/>The name of a <a href="#">Character Stat</a> to multiply.</p> <p><b>Stat Multiplier</b><br/>The amount to multiply the <a href="#">Character Stat</a> by.</p>  |

# Next Steps

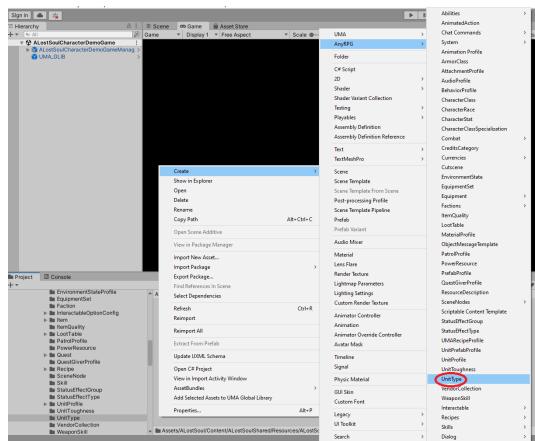
- Add a unit toughness value to a [Unit Profile](#) to make it tougher.

## Unit Type

A unit type is a way of defining a species, and assigning specific capabilities, stats, and power resources to characters of that type.

## Creation

To create a unit type, find (or create) the `GameName/Resources/GameName/UnitType` folder in the project tab and right click. Choose *Create > AnyRPG > UnitType*.



## Properties

| Name            | Description   |
|-----------------|---|
| Capabilities    | A list of <a href="#">Capabilities</a> the unit type have.  |
| Primary Stats   | A list of <a href="#">Primary Stat General Properties</a> , defining which primary stats the unit type will use and how they scale and provide secondary resources. |
| Power Resources | A list of <a href="#">Power Resources</a> the unit type will use.   |

## Next Steps

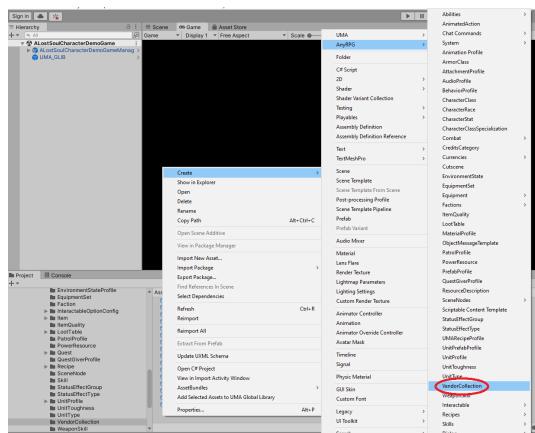
- Define a character's unit type in its [Unit Profile](#).

## Vendor Collection

A vendor collection is a list of items that can be sold by a vendor.

## Creation

To create a vendor collection, find (or create) the `GameName/Resources/GameName/VendorCollection` folder in the project tab and right click. Choose *Create > AnyRPG > VendorCollection*.



## Properties

Vendor Collections have a single property, `Vendor Items`, which is a list with each element having the following fields.

| Name      | Description   |
|-----------|---|
| Item Name | The name of an <a href="#">Item</a> that can be purchased.  |
| Quantity  | The amount of this <a href="#">Item</a> that can be purchased. This field is ignored if <code>Unlimited</code> is true. |
| Unlimited | If true, there is no limit to the number of this <a href="#">Item</a> that can be purchased.                            |
| Quality   | The name of an <a href="#">Item Quality</a> . If this field is not  |

Item Quality Name

empty, the [Item](#) purchased will be of this quality instead of its default quality

## Next Steps

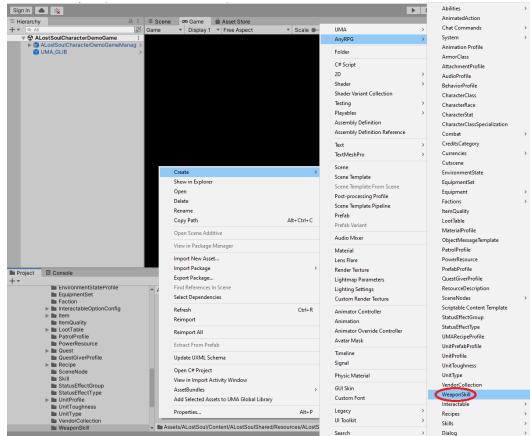
- Add a vendor collection to a [Vendor](#).

## Weapon Skill

A weapon skill defines common properties for weapons of the same type. It can also be optionally required that a character knows it in order to equip or use weapons of that type.

## Creation

To create a weapon skill, find (or create) the `GameName/Resources/GameName/WeaponSkill` folder in the project tab and right click. Choose *Create > AnyRPG > WeaponSkill*.



## Properties

| Name | Description |
|------|-------------|
|      |             |

|                               |  |
|-------------------------------|--|
| Default Weapon Skill          | If true, this skill is considered to be in use by an unarmed character.  |
| Attack Speed                  | Attacks with animations shorter than this value will be calculated to have taken this long. Auto-attacks cannot happen more often than this number of seconds.   |
| Default Hit Effects           | A list of <a href="#">Ability Effects</a> that will be cast on the target when the weapon does damage from a standard (auto) attack.   |
| On Hit Effects                | A list of <a href="#">Ability Effects</a> that will be cast on the target when the weapon does damage from any attack, including a standard (auto) attack.   |
| Animation Profile Name        | An <a href="#">Animation Profile</a> that can overwrite default animations to match the weapon.  |
| On Hit Audio Profiles         | An <a href="#">Audio Profile</a> that contains a link to an audio clip that can be played whenever any physical <a href="#">Ability</a> is cast while the weapon is equipped.  |
| Ability Animation Object List | <p>A list of physical prefabs to attach to the character unit when a weapon is being animated during an attack. This could be arrows, special spell or glow effects, etc.</p> <p><b>Holdable Object Name</b><br/> The name of a <a href="#">PrefabProfile</a> that contains a link to a <a href="#">GameObject</a>.</p> <p><b>Use Universal Attachment</b><br/> If true, attachment points from the <a href="#">PrefabProfile</a> will be ignored, and the universal attachment in the <a href="#">Attachment Name</a> field will be used.</p> <p><b>Attachment Name</b><br/> The <a href="#">Node Name</a> field from one of the <a href="#">Attachment Point Nodes</a> in an <a href="#">Attachment Profile</a>.</p> |
| Ability Object List           | <p>A list of physical prefabs to use when the weapon is being used after the animation phase of an attack. This could be arrows, special spell or glow effects, etc.</p> <p><b>Holdable Object Name</b><br/> The name of a <a href="#">PrefabProfile</a> that contains a link to a <a href="#">GameObject</a>.</p> <p><b>Use Universal Attachment</b><br/> If true, attachment points from the <a href="#">PrefabProfile</a> will be ignored, and the universal attachment in the <a href="#">Attachment Name</a> field will be used.</p> <p><b>Attachment Name</b></p>  |

## Next Steps

- Add a weapon skill to a [Weapon](#) to allow it to use these shared properties.
- Add a weapon skill to [Capabilities](#), allowing any character with those capabilities to wield weapons that require the skill.

# MONOBEHAVIOURS

## Monobehaviours Introduction

[Unity Monobehaviours](#) are scripts that can be added to Prefabs and GameObjects to control their behavior.

AnyRPG makes use of nearly 300 Monobehaviours as part of the engine; however, most of those are part of system objects and the UI, and do not need to be edited or have their serialized properties updated under normal circumstances.

This section describes the usage of Monobehaviours that are meant to be edited by game creators.

The most important monobehaviour scripts included in AnyRPG are added through the included [Wizards](#) and template prefabs, but any that are meant to be edited can easily be manually added to GameObjects by following their documentation.

## Scene Config

An Scene Config is a special type of system script used to allow pressing play from any scene, and having resource selectors work in any scene.

## Usage

A Scene Config Prefab will be automatically added to any scene created with the [New Scene Wizard](#). It is not necessary to add one manually unless a scene is added manually, and not using the wizard. Even then it is optional if you do not desire the ability to press play from that scene or use resource selectors in that scene.

## Properties

| Name                         | Description  |
|------------------------------|--|
| System Configuration Manager | A link to the Game Manager prefab on disk that should be used when building a database for resource selectors to work, or determining which scene is the correct loading scene for the game. |
| Load Game On Play            | If true, the game can be loaded from the current scene by pressing play in the Unity editor.   |

## Dependencies

- A properly configured Game Manager prefab is needed for the Scene Config to work. The Game Manager prefab is added to any game created with the [New Game Wizard](#).

## Channeled Object Script

A channeled object script is attached to a prefab that should be used as a lightning bolt that travels from the caster to the target while channeling an ability.

## Properties

| Name           | Description   |
|----------------|---|
| Start Object   | The game object where the lightning will emit from. If null, StartPosition is used.   |
| Start Position | The start position where the lightning will emit from. This is in world space if StartObject is null, otherwise this is offset from StartObject position. |
| End Object     | The game object where the lightning will end at. If null, EndPosition is used.  |
| End Position   | The end position where the lightning will end at. This is in world space if EndObject is null, otherwise this is offset from EndObject position.          |
| Generations    | How many generations? Higher numbers create more line segments.   |
| Duration       | How long each bolt should last before creating a new bolt. In ManualMode, the bolt will simply  |

|                |   |
|----------------|---|
| Chaos Factor   | disappear after this amount of seconds.<br>How chaotic should the lightning be? (0-1) |
| Manual Mode    | In manual mode, the trigger method must be called to create a bolt.                   |
| Rows           | The number of rows in the texture. Used for animation.                                |
| Columns        | The number of columns in the texture. Used for animation.                             |
| Animation Mode | The animation mode for the lightning.   |

## Dependencies

- A line renderer must be attached to the same prefab, using a material with a sprite sheet of a lightning bolt.
- If *Start Object* and *End Object* are used, the prefab should have 2 gameobjects as children (with no components on them) that will serve as the start and end point of the lightning bolt.

## Channeled Cylinder Script

A channeled cylinder script is attached to a prefab that should be used as a laser beam that travels from the caster to the target while channeling an ability.

## Properties

| Name           | Description   |
|----------------|---|
| Start Object   | The game object where the lightning will emit from. If null, StartPosition is used.   |
| Start Position | The start position where the lightning will emit from. This is in world space if StartObject is null, otherwise this is offset from StartObject position. |
| End Object     | The game object where the lightning will end at. If null, EndPosition is used.  |
| End Position   | The end position where the lightning will end at. This is in world space if EndObject is null, otherwise this is offset from EndObject position.          |

---

## Dependencies

- A channeled cylinder script should be used on a Unity cylinder.

## Edible Object

An Edible Object Script is used on an object that should appear to be eaten or drunk by swapping out 3d models over a certain time period.

## Usage

An Edible Object has no 3d model attached directly to the GameObject. Instead it has multiple 3d models as child GameObjects. The first object should be the model to use when the object is full. As many objects as are desired can be added after that to represent the different stages of eating or drinking until the last object, representing a fully eaten or used up model.

The first object should be active in the heirarchy by default, and all others should be non active. The active status of each will be managed by the script as it progresses through showing them.

---

## Properties

| Name              | Description  |
|-------------------|--|
| Interval          | The time in seconds between changing to the next object.       |
| Keep Last Visible | If true, the last object will stay visible after its interval. |

---

## Dependencies

- One or more child GameObjects should exist for the script to cycle through as the object is consumed.

## Projectile Script

A projectile script is attached to a prefab that will travel through the air toward a target such as fireballs, arrows, tornadoes, etc.

## Properties

| Name         | Description  |
|--------------|--|
| Audio Source | A link to an audio source that will be used to play sound while the projectile is in motion. |

## Dependencies

- A Collider marked as a trigger, and a Rigidbody marked as Kinematic are both required on the same GameObject in order for the projectile to detect a collision with a target.
- An Audio Source is required to play a sound while travelling toward a target.

## Cutscene Camera Controller

A cutscene camera controller is attached to a prefab that will serve as a camera for a cutscene.

## Properties

A cutscene camera controller has no properties.

## Usage

A cutscene camera prefab should be placed in a scene that will play a cutscene and be active.

## Dependencies

- Camera and Audio Listener components should be attached to the same prefab.

## Playable Director Controller

A playable director controller is attached to a prefab that contains a Playable Director component with a

Unity Timeline, and is responsible for playing the timeline.

## Properties

A playable director controller has no properties.

---

## Usage

A playable director will be triggered to play its timeline when the name of the timeline matches the *TimeLine Name* field in a [Cutscene](#). The [Cutscene](#) can be started automatically upon loading the scene by the [Scene Node](#), or triggered manually through a [Cutscene Interactable](#).

---

## Dependencies

- A PlayableDirector component should be attached to the same prefab.

## Spawnable

The Spawnable monobehaviour allows spawning and despawning of other Prefabs based on Prerequisite Conditions being satisfied.

## Usage

Spawnables are the way AnyRPG deals with the need for physical objects in the world to appear or disappear as the game story progresses. There is no limitation to what can be spawned, from small things like shrubs or trees, up to entire buildings.

---

## Properties

| Name                | Description  |
|---------------------|--|
| Prefab Profile Name | A <a href="#">Prefab Profile</a> containing a link to a Prefab that will be spawned.   |
| Spawn Delay         | The amount of seconds to delay spawning the prefab once all the <a href="#">Prerequisites</a> are met and the object can be spawned. |

|                         |   |
|-------------------------|---|
| Spawn Reference         | If the Interactable does not spawn any objects, but instead is always visible, link the GameObject in this field. |
| Despawn Object          | If true, and there is an object spawned, and the <i>Prerequisite Conditions</i> are no longer met, despawn it.    |
| Prerequisite Conditions | <a href="#">Prerequisite Conditions</a> that must be satisfied for the object to spawn.                           |

---

## Dependencies

- Spawnable does not have any dependencies, and can be placed on a Prefab with no other components.

## Interactable

The Interactable monobehaviour is required on any Prefab that the player will be able to interact with. It is also required on Prefabs that are remotely controlled by switches.

## Usage

Interactable inherits from the base class, [Spawnable](#). All Interactables can have one or more interactable options. The Interactable component allows the object to be interacted with, and the Interactable Options provide unique functionality and interaction options.

---

## Properties

In addition to the properties of the base class, [Spawnable](#), Interactable has the following properties.

| Name               | Description   |
|--------------------|---|
| Show Tooltip       | If true, a UI tooltip will be shown when the mouse hovers over the object.  |
| Interactable Name  | The name of the object that will be shown in the mouseover tooltip.   |
| Glow On Mouse Over | If true, the material of the object will be replaced with a glowing material while the mouse is hovering over it. |

|                                   |  |
|-----------------------------------|--|
| Light Emission                    | If true, the glow emits light on objects around it.  |
| Glow Flash Speed                  | The time period in seconds between high and low intensity of the glow strength.  |
| Glow Min Intensity                | The minimum intensity the object should glow with.   |
| Glow Max Intensity                | The maximum intensity the object should glow with.   |
| Glow Color                        | The color of light to emit when glowing.   |
| Temporary Material                | The glow material that should replace any normal materials on this object while glowing.   |
| Interaction Tooltip Text          | Set this value to override the default 'Interact' option for the gamepad interaction tooltip   |
| Not Interactable                  | Set this value to prevent direct interaction from the player. This can be useful for interactables that only need to be activated with control switches.                         |
| Interact With Any                 | Set this to true to allow triggering interaction with anything that has a collider, not just players.  |
| Interact On Exit                  | Set this to true to cause the interaction to trigger only when something exits the collider.   |
| Is Trigger                        | If true, interaction is triggered by a collider, and not by clicking with the mouse  |
| Suppress Interaction Window       | Set this to true to automatically activate the first interactable instead of opening the interaction window and presenting the player with interaction options.                  |
| Interaction Max Range             | For everything except character unit interactions, the interactor must be within this range of this objects collider. This does not apply to interactions triggered by switches. |
| Check Options To Spawn            | If set to true, all interactable options must have <a href="#">Prerequisites</a> met, in addition to the interactable prerequisites, in order to spawn.                          |
| Spawn Requires Valid Option       | Require a valid interactable option in addition to any <a href="#">Prerequisites</a> . For example, quests on a questgiver, a class changer, and dialogs.                        |
| Despawn Requires No Valid Options | Require no valid interactable options in addition to any <a href="#">Prerequisites</a> . For example, quests on a questgiver, a class changer, and dialogs.                      |

|                           |  |
|---------------------------|--|
| Component Controller      | Reference to local component controller prefab with nameplate target, speakers, etc. |
| Unit Component Controller | Reference to local component controller prefab with nameplate target, speakers, etc. |

## Dependencies

- Any interactable that will be directly interacted with needs a Collider component, so that it can be clicked on.
- One or more Interactable Option Components must be present for any interactions to be possible.

## Interactable Options

Interactable Options are individual types of interactions that an Interactable can provide.

## Usage

An Interactable Option provides unique functionality and interaction options to an [Interactable](#). As many interactable options as are desired can be placed on the same Prefab as the Interactable.

## Properties

All Interactable Options have a common set of [Interactable Option Configuration Properties](#).

## Animated Object

An Animated Object Interactable Option is responsible for triggering an animation on an Animation component.

## Properties

| Name        | Description  |
|-------------|--|
| Switch Only | If true, this option can only be interacted with via a switch. |

|                      |   |
|----------------------|---|
| Animation Component  | A link to an Animation Component containing animations to play.   |
| Open Animation Clip  | A link to an Animation Clip to play when changing to the open position.   |
| Open Audio Clip      | A link to an Audio Clip to play when changing to the open position.   |
| Open Audio Profile   | The name of an <a href="#">Audio Profile</a> containing a link to an Audio Clip to play when changing to the open position.   |
| Close Animation Clip | A link to an Animation Clip to play when changing to the closed position.   |
| Close Audio Clip     | A link to an Audio Clip to play when changing to the closed position.   |
| Close Audio Profile  | The name of an <a href="#">Audio Profile</a> containing a link to an Audio Clip to play when changing to the closed position. |

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.
- An Animated Object triggers animations on an Animation Component, so an Animation Component is required. The Animation Component is linked from a [property](#), so it does not need to be on the exact same GameObject as the Animation Object Monobehaviour.

## Bank

A Bank creates the same Interactable Option as a Bank Config.

## Properties

A Bank does not have any properties other than the properties shared by all [Interactable Option Configs](#).

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

## Behavior Interactable

A Behavior Interactable creates the same Interactable Option as a Behavior Config.

### Properties

A Behavior Interactable has [Behavior Config Properties](#).

---

### Dependencies

- An Interactable Monobehavior must be on the same GameObject.

## Character Creator Interactable

A Character Creator Interactable creates the same Interactable Option as a Character Creator Config.

### Properties

A Character Creator Interactable has [Character Creator Config Properties](#).

---

### Dependencies

- An Interactable Monobehavior must be on the same GameObject.

## Class Change Interactable

A Class Change Interactable creates the same Interactable Option as a Class Change Config.

### Properties

A Class Change Interactable has [Class Change Config Properties](#).

---

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

## Click Switch

An Click Switch can be activated locally (by the player) or remotely (by another switch) and is responsible for activating other Interactable Options.

## Properties

| Name            | Description  |
|-----------------|--|
| Control Objects | A list of links to other Interactable Options in the same scene.   |
| Switch Group    | A list of other Switch-type Interactable Options. A of the other options must be in the Open Position for this switch to activate its <i>Control Objects</i> . |

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.
- For a click switch to do anything, it needs to have links to at least one other valid Interactable Option in the same scene.

## Crafting Node

A Crafting Node creates the same Interactable Option as a Crafting Node Config.

## Properties

A Crafting Node has [Crafting Node Config Properties](#).

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

## Cut Scene Interactable

A Cut Scene Interactable creates the same Interactable Option as a Cutscene Config.

## Properties

A Cut Scene Interactable has [Cutscene Config Properties](#).

---

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

## Dialog Interactable

A Dialog Interactable creates the same Interactable Option as a Dialog Config.

## Properties

A Dialog Interactable has [Dialog Config Properties](#).

---

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

## Faction Change Interactable

A Faction Change Interactable creates the same Interactable Option as a Faction Change Config.

## Properties

A Faction Change Interactable has [Faction Change Config Properties](#).

---

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

## Gathering Node

A Gathering Node creates the same Interactable Option as a Gathering Node Config.

---

## Properties

A Gathering Node has [Gathering Node Config Properties](#).

---

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

## Item Pickup

An Item Pickup creates the same Interactable Option as an Item Pickup Config.

---

## Properties

An Item Pickup has [Item Pickup Config Properties](#).

---

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

## Load Scene Interactable

A Load Scene Interactable creates the same Interactable Option as a Load Scene Config.

## Properties

A Load Scene Interactable has [Load Scene Config Properties](#).

---

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

## Lootable Character

A Lootable Character creates the same Interactable Option as a Lootable Character Config.

## Properties

A Lootable Character has [Lootable Character Config Properties](#).

---

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

## Moveable Object

An Moveable Object Interactable Option moves and/or rotates an object between its initial position in the scene and a defined position.

## Properties

| Name            | Description  |
|-----------------|--|
| Switch Only     | If true, this option can only be interacted with via a switch. |
| Moveable Object | A link to the prefab which will be moved and/or rotated.       |
| Movement Speed  | The speed, in meters per second, the object will move at.      |

|                  |   |
|------------------|---|
| Rotation Speed   | The speed, in degrees per second, the object will rotate at.  |
| Delay Time       | The amount of seconds to delay inbetween open and close actions when looping.   |
| Loop             | If true, the object should continue moving and rotating between the start and end positions until the Interactable Option is interacted with again. |
| Target Position  | The Vector3 target position to move to.   |
| Target Rotation  | The Vector3 target rotation to rotate to.   |
| Open Audio Clip  | A link to an Audio Clip to play when changing to the open (starting) position.  |
| Close Audio Clip | A link to an Audio Clip to play when changing to the closed (ending) position.  |

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.
- An Moveable Object moves a prefab, so a prefab that is intended to be moved must be present in the scene. This can be any prefab and does not have to be in the same heirarchy as the Moveable Object Monobehaviour.

## Moveable Prefab

A Moveable Prefab creates the same Interactable Option as a Moveable Prefab Config.

## Properties

A Moveable Prefab has [Moveable Prefab Config Properties](#).

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

# Music Player

A Music Player creates the same Interactable Option as a Music Player Config.

## Properties

A Music Player has [Music Player Config Properties](#).

---

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

# Name Change Interactable

A Name Change Interactable creates the same Interactable Option as a Name Change Config.

## Properties

A Name Change Interactable has [Name Change Config Properties](#).

---

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

# Pressure Switch

An Pressure Switch is a type of switch that is activated when a RigidBody with a certain weight moves into its collider.

## Properties

| Name            | Description  |
|-----------------|--|
| Control Objects | A list of links to other Interactable Options in the same scene. |

|                  |   |
|------------------|---|
| Switch Group     | A list of other Switch-type Interactable Options. At least one of the other options must be in the Open Position for this switch to activate its <i>Control Objects</i> . |
| Activation Limit | The number of times this switch can be activated. This value is unlimited.  |
| Minimum Weight   | The minimum weight a RigidBody must have to activate this switch.   |

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.
- For a pressure switch to do anything, it needs to have links to at least one other valid Interactable Option in the same scene.

## Quest Giver

A Quest Giver creates the same Interactable Option as a Quest Giver Config.

## Properties

A Quest Giver has [Quest Giver Config Properties](#).

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

## Skill Trainer

A Skill Trainer creates the same Interactable Option as a Skill Trainer Config.

## Properties

A Skill Trainer has [Skill Trainer Config Properties](#).

---

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

## Specialization Change Interactable

A Specialization Change Interactable creates the same Interactable Option as a Specialization Change Config.

## Properties

A Specialization Change Interactable has [Specialization Change Config Properties](#).

---

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

## Teleport Interactable

A Teleport Interactable creates the same Interactable Option as a Teleport Config.

## Properties

A Teleport Interactable has [Teleport Config Properties](#).

---

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

## Unit Spawn Controller Interactable

A Unit Spawn Controller Interactable creates the same Interactable Option as a Unit Spawn Controller

Config.

## Properties

A Unit Spawn Controller Interactable has [Unit Spawn Controller Config Properties](#).

---

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

## Vendor

A Vendor creates the same Interactable Option as a Vendor Config.

## Properties

A Vendor has [Vendor Config Properties](#).

---

## Dependencies

- An Interactable Monobehavior must be on the same GameObject.

## Environmental Effect Area

An environmental effect area is an area where any player that enters will have some type of environmental effect applied to him, such as lightning damage, lava damage, poison damage, etc.

## Properties

| Name                 | Description   |
|----------------------|---|
| Tick Rate            | The number of seconds that should elapse between each tick of <a href="#">Ability Effects</a> .     |
| Ability Effect Names | A list of <a href="#">Ability Effects</a> to apply to any characters inside the area on every tick. |

## Dependencies

- A box collider is required on the same GameObject as the script. It should be marked as a trigger so that it can detect when a character enters the area.

## Movement Sound Area

A Movement Sound Area changes the sound of footsteps for any character in motion in the area. This can be used to change default footsteps to water splashes, gravel crunches, grass swishing etc.

## Properties

| Name                       | Description   |
|----------------------------|---|
| Movement Loop Profile Name | The name of an <a href="#">Audio Profile</a> containing a looping audio clip that will be played while the a character is in motion.  |
| Movement Hit Profile Name  | The name of an <a href="#">Audio Profile</a> containing a list of footstep hit sounds that will be played whenever a characters feet hit the ground in response to <code>PlayFootStep</code> or <code>PlayStep</code> animation events. |

## Dependencies

- A collider marked as a trigger is required on the same GameObject as the script so that it can detect when a character enters the area.

## Persistent Object

A Persistent Object will have its position saved, so when a game is loaded, the object appears in the last place it moved to, instead of its default position in the scene.

## Properties

A Persistent Object contains a single property, *Persistent Object Component*, with the following properties.

| Name                    | Description   |
|-------------------------|---|
| Persist Object Position | If true, the object position is saved so that the object will spawn at the saved location next time a game is loaded. This requires at least one of Save On Level Unload, or Save On Game Save. |
| Save On Level Unload    | If true, the position will be saved when a level is unloaded.   |
| Save On Game Save       | If true, the position will be saved when the game is saved.   |

---

## Dependencies

- A UUID script is required, which is automatically added upon adding the Persistent Object script.

## Respawn Area

A Respawn Area is designed to be placed below a scene, covering its entire horizontal area, for the purpose of preventing infinite falling if a character falls through the bottom of a scene.

## Usage

A Respawn Area is included in the system template prefab, ZoneColliders, which is added to any new scene created with the New Scene Wizard, but can also be added manually to any GameObject.

---

## Properties

A Respawn Area has no properties.

---

## Dependencies

- A Collider marked as a trigger is required in order to detect characters as they enter the Respawn Area.

# Unit Spawn Node

A Unit Spawn Node is responsible for spawning character units in a scene.

## Properties

| Name               | Description  |
|--------------------|--|
| Unit Profile Names | <a href="#">Unit Profiles</a> of characters that will be spawned.  |
| Dynamic Level      | If true, the spawned characters will be the same level as the player, instead of the default level set in the <i>Unit Level</i> field.   |
| Unit Level         | The level the characters will be set to, if <i>Dynamic Level</i> is false.   |
| Extra Levels       | If <i>Dynamic Level</i> is true, the characters will have this many more levels than the player. This is used to guarantee some characters are always tougher than the player.                                   |
| Default Toughness  | The <a href="#">Toughness</a> the spawned characters will be.  |
| Spawn Timer        | Spawn time for regular mob spawns, such as when <a href="#">Prerequisites</a> are updated, or the spawner supports multiple units and they should not all spawn at once.   |
| Spawn Delay        | An additional delay to add to the timer, meant to allow an offset for multiple spawners of the same type.  |
| Despawn Delay      | An extra delay from the time the <code>Destroy GameObject</code> call is made before it is actually destroyed.   |
| Respawn Timer      | A separate spawn timer for when mob despawns are detected to give players longer to move away before a mob attacks them again. -1 disables respawning of despawned units.  |
| Respawn On         | An enumeration of options that controls when respawns will happen.<br><b>Despawn</b><br>Respawns will happen when a character despawns.<br><b>Loot</b><br>Respawns will happen as soon as a character is looted. |

|                         |  |
|-------------------------|--|
|                         | <b>Death</b><br>Respawns will happen immediately upon a character dying.   |
| Max Units               | The maximum number of simultaneous units that can be spawned. If this number is reached, additional spawns will be prevented until the number of active characters falls below this number. Set to -1 to do infinite spawns. |
| Suppress Auto Spawn     | Set to true to allow for <a href="#">Unit Spawn Control Panels</a> to use this node.   |
| Trigger Based           | If true, ignore spawn timers and use trigger instead.  |
| Trigger Limit           | The number of times this object can be triggered. It is unlimited.   |
| Spawn Density           | In area mode, the number of mobs per square meter to spawn.  |
| Point Based             | If true, units will spawn at the pivot of the Unit Spawn Node.   |
| Force Despawn Units     | If true, and there are units spawned, and the <a href="#">Prerequisite Conditions</a> are no longer met, despawn them.   |
| Prerequisite Conditions | <a href="#">Prerequisite Conditions</a> that must be met for units spawn.  |

## Dependencies

- If *Trigger Based* is set to true, then a Collider marked as a trigger is required on the same GameObject in order to detect when players enter the area.

## Water Body

A Water Body is an enclosed area the player can float and swim within.

## Properties

| Name | Description |
|------|-------------|
|      |             |

|                                |   |
|--------------------------------|---|
| My Collider                    | A link to a Collider.<br>If true, fog will be enabled when the camera is within the bounds of the collider to give a realistic under water effect by limiting the distance that the player can see. |
| Use Fog                        |   |
| Fog Color                      | The color of the fog to be used when the camera is in the water.  |
| Fog Density                    | The density of the fog. More dense fog means the distance a player can see is smaller.  |
| Enter Water Audio Profile Name | An <a href="#">Audio Profile</a> containing a link to an audio clip to play for a splash sound when entering the water.   |
| Swim Loop Audio Profile Name   | An <a href="#">Audio Profile</a> containing a link to an audio clip to loop when the player is swimming on the surface of the water.  |
| Swim Hits Audio Profile Name   | An <a href="#">Audio Profile</a> containing a link to audio clip to play whenever the players hands hit the water when the player is swimming on the surface of the water.                          |

## Dependencies

- A collider is required on the same GameObject as the Water Body so that players can be detected when they enter the water.

# Architecture

## Ability System

The ability system is separated into 2 parts: abilities and ability effects.

Abilities are relatively simple and are mostly responsible for determining when an effect is able to be cast.

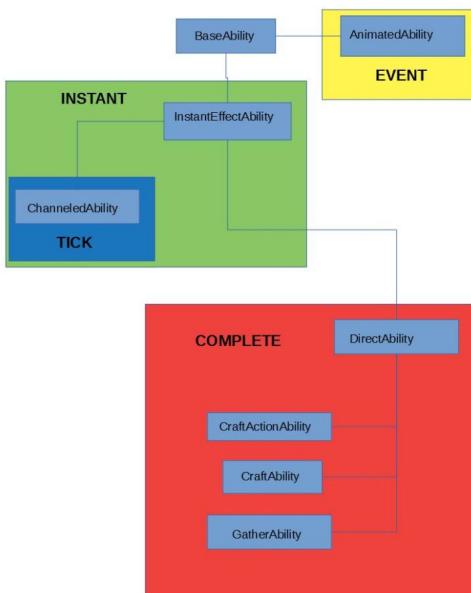
Effects are the part of the system that are responsible for performing actions, and can call other effects to chain together pieces of functionality and build complex spells from simple components.

Both abilities and ability effects make heavy use of class inheritance to maximize the re-use of common code and minimize any code duplication to ensure predictable and reliable behavior when chaining effects together to build spells and abilities.

# Abilities

Abilities have 3 basic ways to determine when it is time to cast an effect:

1. Event based abilities are triggered by events in animations, and can be triggered multiple times by the same animation if that animation has multiple events configured.
2. Instant abilities cast their effect right away, and in the case of channeled abilities, instantly on each tick of the channel.
3. Complete abilities cannot cast their effect until a cast reaches the end of its cast timer and completes successfully.



# Ability Effects

Ability Effects are separated into small pieces of related functionality, and can be chained together like building blocks to build up quite complex spells. The 3 main groups of functionality are:

1. Attached effects are tracked by the CharacterStats class on the actual character, have a length that can

- be extended or refreshed, and are capable of both directly affecting a character's stats, and performing additional effects over their lifetime.
2. Targeting and timing effects are responsible for deciding when and where to trigger additional effects. They may choose valid targets from a group of targets, direct the motion of physical prefabs, and determine how long spell effects remain in the game before they are destroyed. They cannot perform any direct action on a character, but can call any other effect, including effects which can perform actions on characters.
  3. Action effects perform actions on characters. Current action capabilities include resurrection, teleportation, healing, and damage dealing.



## Project Settings

This section lists the required settings and configuration for the AnyRPG Engine to work in Unity.

## Layers

The table below lists the required layers and their purpose.

| Layer | Name    | Source | Usage  |
|-------|---------|--------|--|
| 0     | Default | Unity  | Projectors will shine on this layer. Invector controller requires anything walkable to use this layer. |

|    |                |                 |   |
|----|----------------|-----------------|---|
| 1  | TransparentFX  | Unity           |   |
| 2  | Ignore Raycast | Unity           | Player Nameplate uses this layer to prevent accidental highlight of player unit.  |
| 3  |                | Unity           |   |
| 4  | Water          | Unity           |   |
| 5  | UI             | Unity           |   |
| 6  |                | Unity           |   |
| 7  |                | Unity           |   |
| 8  | Player         | Invector/AnyRPG | Used to allow camera to ignore anything that is not the player in player unit frame and character panel.<br>Many packages like Invector also rely on this player being set to this layer so they can find it. |
| 9  | Enemy          | Invector        |   |
| 10 | CompanionAI    | Invector        |   |
| 11 | Triggers       | Invector        |   |
| 12 | StopMove       | Invector        |   |
| 13 | Action         | Invector        |   |
| 14 | HeadTrack      | Invector        |   |
| 15 | BodyPart       | Invector        |   |
| 16 | BlockAIRayCast | Invector        |   |
| 17 | Equipment      | AnyRPG          | Set anything attached to the player to this layer to prevent it from interfering with ground detection or projector.  |
| 18 | FireLayer      | Package         | Unused. This was probably from an import of a VFX package.  |

|    |               |        |  |
|----|---------------|--------|--|
| 19 | PlayerPreview | AnyRPG | Used by the load game screen to allow the camera to ignore anything that is not a player preview.  |
| 20 | SpellEffects  | AnyRPG | Used to ignore raycasts, collision, and all but the main camera rendering spell effects.   |
| 21 | MiniMap       | AnyRPG | Anything on this layer will only be rendered by the minimap camera. Used for interactable icons such as questgiver shown on the minimap.   |
| 22 | CharacterUnit | AnyRPG | CharacterUnit is the layer that all characters should be placed on. This allows them to show in unit frames and is required for an AOE ability to target anything to avoid spending time processing hits again the ground, props, etc. |
| 23 | UnitPreview   | AnyRPG | Unit previews such as unit spawn control panels will place their targets on this layer so other cameras don't render them.   |
| 24 | PetPreview    | AnyRPG | Pet previews such as pet journals will place their targets on this layer so other cameras don't render them.   |
| 25 | Interactable  | AnyRPG | Used to render non character units in unit frames without rendering the environment.   |

|    |               |         |   |
|----|---------------|---------|---|
| 26 |               | Unused  |   |
| 27 |               | Unused  |   |
| 28 |               | Unused  |   |
| 29 |               | Unused  |   |
| 30 |               | Unused  |   |
| 31 | AlwaysVisible | Package | The Sun Temple uses this layer to make certain things in the background always visible regardless of culling distances. |

## Tags

AnyRPG uses certain tags for different functionality.

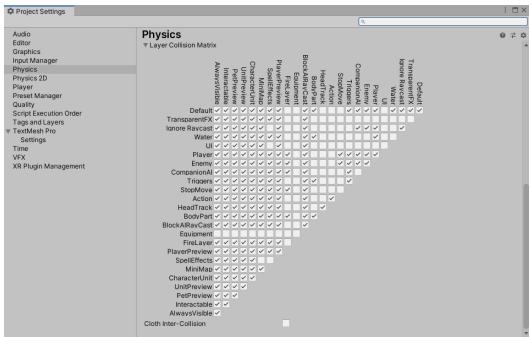
| Name                 | Source | Usage   |
|----------------------|--------|---|
| DefaultSpawnLocation | AnyRPG | Tag an object with this and the player will spawn at that point if there is no specific spawn location set in the scene node. |
| NorthEntrance        |        | An easy tag that can be used for a spawn point when travelling between zones in the 4 main compass directions.                |
| SouthEntrance        |        | An easy tag that can be used for a spawn point when travelling between zones in the 4 main compass directions.                |
| WestEntrance         |        | An easy tag that can be used for a spawn point when travelling between zones in the 4 main compass directions.                |
| EastEntrance         |        | An easy tag that can be used for a spawn point when travelling between zones in the 4 main compass directions.                |

# Physics Settings

The most important settings are:

- Equipment should never collide with anything or weapons can interfere with character movement.
- Spell Effects should never collide with themselves or things like meteors could blow each other up instead of reaching the character or ground.

The full settings matrix is below.



# Shared Properties

## Capabilities

Capabilities are lists of abilities, traits, and equipment skills that a character gains access to from capability providers.

## Properties

| Name             | Description   |
|------------------|---|
| Ability Names    | A list of abilities the character can cast.   |
| Trait Names      | A list of inherent status effects that will always be active on the character, and will not show on the status effect bars. |
| Armor Class List | A list of armor classes that the character can equip.   |
| Weapon Skills    | A list of weapon types the character can equip.   |

## Prerequisite Conditions

Prerequisite conditions are lists of conditions that must be satisfied, and can be used to gate objects from spawning or interactable options from being available.

## Properties

| Name                          | Description   |
|-------------------------------|---|
| Require Any                   | If true, only one condition needs to be satisfied for the prerequisite to be met.   |
| Reverse Match                 | If true, the prerequisites will use NOT logic, and must be false to be met.   |
| Level Prerequisites           | A list of level prerequisites that must be met.<br><b>Required Level</b><br>The character must be at or above this level for the prerequisite to be met.  |
| Character Class Prerequisites | A list of <a href="#">Character Class</a> prerequisites that must be met.<br><b>Required Character Class</b><br>The character class that the character must be for the prerequisite to be met.  |
| Quest Prerequisites           | A list of <a href="#">Quest</a> prerequisites that must be met.<br><b>Prerequisite Name</b><br>The name of the quest. If Require Complete and Require Turned In are false, the character must have the quest in their quest log.<br><b>Step Index</b><br>For multi-step quests, the step of the quest that must be active.<br><b>Require Complete</b><br>If true, the quest must be marked complete.<br><b>Require Turned In</b><br>If true, the quest must be turned in. |
| Dialog Prerequisites          | A list of <a href="#">Dialog</a> prerequisites that must be met.<br><b>Prerequisite Name</b><br>The name of the <a href="#">Dialog</a> that must be completed.  |
| Visit Zone Prerequisites      | A list of visit zone prerequisites that must be met.<br><b>Prerequisite Name</b><br>The name of the Scene that must have been visited for the prerequisite to be met.   |
|                               | A list of trade skill prerequisites that must be met.   |

|                           |  |
|---------------------------|--|
| Trade Skill Prerequisites | <b>Prerequisite Name</b><br>The name of the <a href="#">Trade Skill</a> the character must know for the prerequisite to be met.<br>A list of ability prerequisites that must be met.   |
| Ability Prerequisites     | <b>Prerequisite Name</b><br>The name of the <a href="#">Ability</a> that must be known for the prerequisite to be met.   |
| Faction Prerequisites     | A list of faction prerequisites that must be met.<br><b>Prerequisite Name</b><br>The name of the faction the character must have reputation with.<br><b>Prerequisite Disposition</b><br>The amount of reputation the character must have |

## Stat Scaling Nodes

Stat Scaling Nodes define primary stats and their budget per level. Each point of primary stat can provide direct or rated amounts of secondary stats as well as direct amounts of power resources.

## Properties

| Name                            | Description  |
|---------------------------------|--|
| Stat Name                       | A <a href="#">Character Stat</a> .   |
| Budget Per Level                | The number of points of the stat that a character will gain for each level.  |
| Primary To Secondary Conversion | The amount of each secondary stat that a character will gain for each point of the primary stat.<br>See <a href="#">Character Stat Properties</a> for field description                          |
| Primary To Resource Conversion  | A list of <a href="#">Power Resources</a> and the number of points of that resource gained per point of the primary stat.<br>See <a href="#">Character Stat Properties</a> for field description |
| Regen                           | A list of the amount of <a href="#">Power Resources</a> that will be regenerated per point of primary stat every tick.<br>See <a href="#">Character Stat Properties</a> for field description    |