ATLAS
DIVISION

INTERACTIVE VINTAGE RADIO

Atlas Division

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Overview

This package contains a fully interactive, high-poly vintage radio. This asset was designed specifically for player interaction with the knobs, buttons and switches that are built into the 3D model. Example scripts and a scene with a fully functional radio are included for you to test, expand upon and integrate into your game's experience.

As this package is updated you will receive any additional assets and capabilities that come with those updates at no additional charge.

Contact Information

You can reach us at Atlas@sage-mgt.net for any support regarding this package. Feel free to contact us with any comments, suggestions or problems you may have and we will be more than happy to help you.

Package Contents

This package contains the following assets to help you set up an interactive radio in your game:

Asset Name	Asset Type	Format
VintageRadio	3D model	FBX
Arrow	Texture	PNG
Button	Texture	PNG
RadioBase	Texture	PNG
mat_Arrow	Material	Unity Material
mat_Buttons	Material	Unity Material
mat_Knob	Material	Unity Material
mat_Phong	Material	Unity Material
mat_RadioBase	Material	Unity Material
mat_Toggle	Material	Unity Material
Interactive Vintage Radio	Prefab	Unity Prefab
InteractiveRadio	MonoBehaviour	C# File
RadioStation	C# Class	C# File
ToggleSwitch	MonoBehaviour	C# File
TunerKnob	MonoBehaviour	C# File
VolumeKnob	MonoBehaviour	C# File
ExampleScene	Unity Scene	Scene file
Interactive Vintage Radio Docs	Documentation	PDF

Folder Structure

To help keep your project as clean and organized as possible, all the files included in this package are contained in their own folder structure. Each folder is named appropriately based on the category of assets it contains. The folder layout is seen below.
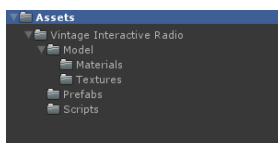
Note regarding audio assets

Due to licensing considerations, no audio files have been included with this package. However, any audio clip can be assigned to a "radio station" and to the "white noise" properties of the Interactive Radio to hear the results in game.

How the Interactive Radio Works

The "Interactive Vintage Radio" prefab is designed for your player to interact with it directly via mouse click. Each interactive component contains the necessary behaviors to change positions and rotations based on player input. The radio object itself will determine when a radio station or static should be played.

Controls

The picture below shows the layout of the interactive controls on the radio:

1. Tuner Knob

2. Volume Knob

3. On/Off Toggle

Knob Controls

Each knob can be controlled through mouse events. Left-click will rotate a knob clockwise and right-click will rotate it counter-clockwise. This results in changes to the properties of the audio source and in the case of the "Tuner Knob", the station indicator arrow will change position appropriately.

Switch Controls

The On/Off toggle switch is controlled through the left-click mouse event. This control reacts exactly like a checkbox in a GUI. Rather than stopping any playing audio clip, the On/Off switch simply mutes it. This means that the audio clip continues to play despite the fact that the player cannot hear it. Ultimately, this means that the player can switch the radio on and off and the audio clip will not restart during this process.

Button Controls

There are several buttons available for you to use on the radio. As of version 1.0, there is not defined functionality so it is up to you to define how best to use them. There are three small buttons located under the station indicator and one large button next to the toggle switch.

Setting Up A Working Radio

The inspector for the Vintage Interactive Radio is shown below. The following sections outline the purpose of each of the properties and how to set everything up to have a working radio in your game.
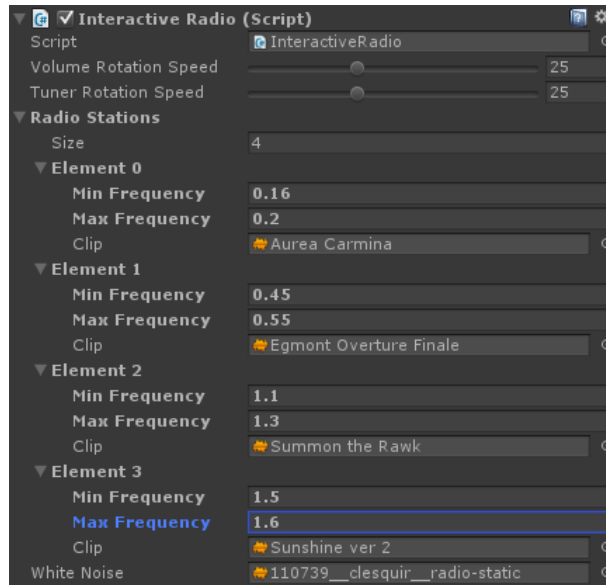
Volume Rotation Speed

This property controls the speed at which the volume knob will be rotated while the player executes a click-and-hold mouse action. The volume knob will rotate continuously as long as a mouse button is held down over it. Left-click will rotate it clockwise which increases the volume of the audio source, whereas right-click will rotate it counter-clockwise and decrease the volume of the attached audio source.

Tuner Rotation Speed

This property controls the speed at which the tuner knob will be rotated while the player executes a click-and-hold mouse action. The tuner knob will rotate continuously as long as a mouse button is held down over it. Left-click will rotate it clockwise which increases the "frequency" the radio is tuned at, whereas right-click will rotate it counter-clockwise and decrease the "frequency". While this control is being manipulated, the "tuner indicator" will also move to show the currently tuned frequency.

Radio Stations

The Radio Stations property contains a list of radio stations that have been set up to work on this radio. You can have as many radio stations as you feel comfortable in this list. In our testing, we found that having between 4 and 6 radio stations made for our best experiences.

NOTE: If you lower the tuner rotation speed you can add more stations since the slower rotation will keep the tuner from skipping over frequencies.

Min Frequency

The Min Frequency property defines the lowest frequency that a station will begin playing at. As soon as the radio is tuned to this frequency the assigned audio clip will begin to play.

Max Frequency

The Max Frequency property defines the highest frequency that can be reached before a station stops playing. As soon as the radio is tuned beyond a station's max frequency it will either begin playing "white noise" or move to the next available station if applicable.

NOTE ON FREQUENCY RANGE:

*In the initial release of this package, all frequencies must exist in a range of **0 - 1.75**. This is due to the way rotation of the tuner indicator and knobs are handled. The supplied example scene contains a radio that is set up, all you need to do is add audio files.*

Clip

The clip property is the audio clip that is assigned to a radio station. Currently, this system only supports a single audio clip per station. This clip will play as long as the radio is tuned between the Min Frequency and Max Frequency of the station it is assigned to.

White Noise

The White Noise property is the audio clip that will be played when no radio station is available at the currently tuned frequency. If you do not assign an audio clip to this property, the audio source will simply stop playing any sound.