PODPlayer

User Manual

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1. Introduction

The PODPlayer is an application that displays POD files as produced by Collada2POD or the PVRGeoPOD plug-ins. There is an inbuilt menu allowing various options to be tweaked during playback and a simple script may be used to specify playback options as well.

Source code is provided for the PODPlayer showing how it is built upon the PVREngine and how this allows the same code to be built for various APIs and platforms using the appropriate PVREngine library.

Sample POD running in PODPlayer

1. Using the PODPlayer Application

A POD file may be played in the PODPlayer in a number of ways:

- Passing a path to the POD file as a command line argument to the PODPlayer application. Note that this is equivalent to dragging and dropping a POD on the PODPlayer icon from the Windows explorer when running PODPlayer on this platform.
- Passing a path to a .pvres script file that itself contains a path to the desired POD file in a similar way.
- By default the PODPlayer will look for the example POD file in the same directory as the PODPlayer executable.

When the PODPlayer starts up there should be some output on the screen to show how the initialisation is progressing. Once this is done the POD file should play automatically in the PODPlayer's view mode.

2. PVRES Scripts

A number of options for the PODPlayer may be set in a text file with the extension '.pvres'.

Various options can be specified in this file that will be applied when the PODPlayer application starts up including some options that are unavailable from the options menu once the PODPlayer is running.

The .pvres file should use DOS line endings (i.e. CR/LF) in order to be read successfully by the PODPlayer application and each option should occupy a separate line, empty lines are ignored. For each line enter the option key word, a colon and then the desired value with no other characters in between.

2.1. PVRES Options

Option	Values	Description	Default
pod	Path to POD file	This specifies which Pod file to play.	n/a
title	Title string	A name to display on screen while this POD is playing	PODPlayer
fullscreen	y or n	Specifies full screen or windowed mode	Depends on platform
startframe	Positive decimal value	Specifies the starting frame for the POD animation	0.0
showfps	y or n	Toggles the frames per second display on or off	y
animspeed	Decimal value from -10.0 to 10.0	Sets the animation speed modifier: 0 is native; higher values mean faster animation.	0.0
vertsync	y or n	Sets whether to synchronize with the vertical refresh rate of the screen	n
logtofile	y or n	Sets whether to output log entries to a log file	y
powersaving	y or n	Enables power saving mode on some devices	n
fsaa	0, 1, 2	Sets the full screen anti-aliasing mode: 0 off; 1 2x; 2 4x	0
height	Positive integer value	Height of PODPlayer window	Depends on platform
width	Positive integer value	Width of PODPlayer window	Depends on platform
posx	Positive integer value	Horizontal position of window	Depends on platform
posy	Positive integer value	Vertical position of window	Depends on platform
quitaftertime	Positive decimal value	Time in seconds for the application to run	-1 = infinite time
quitafterframe	Positive integer value	Number of frames to render before application quits	-1 = infinite frames

To launch a POD file called ‘test.pod’ from your user directory with 4x full screen anti-aliasing, vertical sync, no logging, full screen and using the title “Test POD File” you could use the following PVRES script:

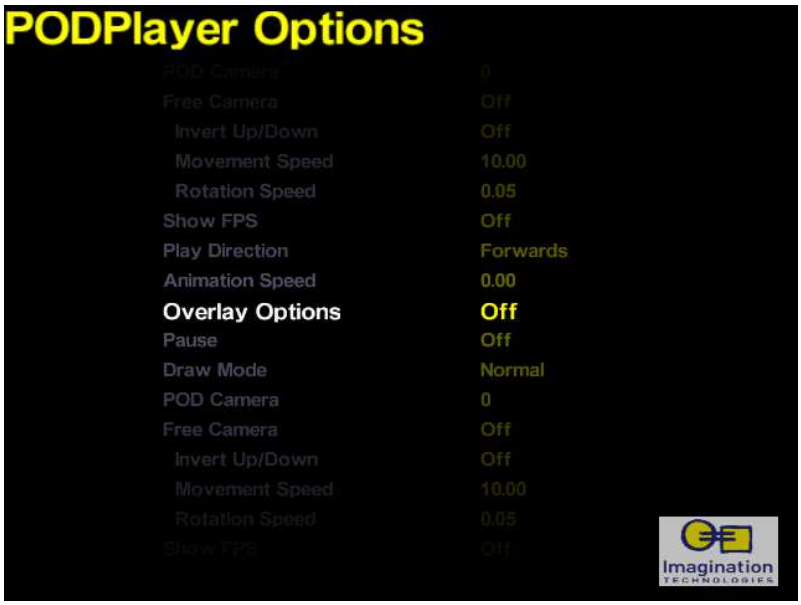
```
pod:/home/username/test.pod

fsaa:2
logtofile:n
vertsync:y
title:Test POD File
fullscreen:y
```

3. The Viewer

PODPlayer will initialise into viewing mode, displaying the 3D geometry in your POD scene with the current viewing options. Using the left or right keys will allow rewinding and fast forwarding of the POD animation. Pressing the QUIT button (Esc in PVRVFrame) exits the application from this mode and also from the Options Menu.

4. The PODPlayer Options Menu



The Options Menu

To access the PODPlayer menu whilst a POD is playing press the SELECT key (the space bar in PVRVFrame). This will swap from the 3D display to the options menu.

To scroll through the options use the up and down keys and to change options use left and right.

The available configurations are listed here:

Option	Values	Description	Default
Overlay Options	on/off	Sets whether to overlay these options upon the 3D scene or to use a plain background	off
Pause	on/off	Freezes the POD animation	off
Draw Mode	Normal, No FX, Wireframe, Wireframe with No FX, Boundaries	Changes the way in which the meshes in the POD are rendered. See later in this document for details.	Normal
POD Camera	Integer number	Chooses which of the cameras defined in the POD to use for the current view	0

Option	Values	Description	Default
Free Camera	on/off	Chooses between the user controlled free camera and the camera defined in the POD	off
Invert Up/Down	on/off	Inverts the up and down directions for controlling the free camera	off
Movement Speed	Positive decimal value between 0.5 and 100.0	Determines the speed of the free camera when it moves	10.0
Rotation Speed	Positive decimal value between 0.01 and 0.5	Determines the speed of rotation of the free camera	0.05
Show FPS	on/off	Toggles the on screen display the frames per second value	on
Play Direction	Forwards/Backwards	Sets whether the POD animation plays forwards or backwards	Forwards
Animation Speed	Decimal values between -10.0 and 10.0	Determines the speed at which the POD's animation progresses. Higher values are faster.	0.0

4.1. Drawing Modes

The PODPlayer can display the meshes in a POD using five drawing modes.

4.1.1. Normal

In this drawing mode all effects and textures are applied as the original author of the POD intended. This is the default mode and is the most fully-featured. Skinning and other effects requiring alteration to the display of geometry in the scene should work with this setting, but for various reasons may not work correctly in other modes.

4.1.2. No FX

This mode displays the POD using a flat red shader in shader-enabled version of PODPlayer and using untextured, fixed-function geometry where shaders are not available. Meshes whose materials have not been successfully initialised will also be represented using this mode when Normal has been chosen for general rendering.

4.1.3. Wireframe

Renders the meshes in wireframe mode and with effects and textures still applied.

4.1.4. Wireframe with No FX

Renders the meshes in wireframe mode, but with no effects applied.

4.1.5. Boundaries

Renders bounding boxes with a wireframe effect for the meshes and not their actual geometry.

4.2. The Free Camera

Enabling this option allows simple user-controlled navigation of the POD scene. Use the direction keys to orientate your view and the action keys to move forwards and backwards (1 and 2 in PVRVFrame). The free camera will always be placed in the same coordinates as the current POD camera when this option is initially selected.

The movement speed and rotation speed options affect this view mode and you may also invert the up and down controls to your preference.

5. Source Code

The source code provided shows how the PODPlayer is built upon the PVREngine and is entirely API and platform independent. For more information please examine the files themselves, the comments embedded in them and also the PVREngine documentation.