Collada2POD

User Manual

Filename	:	Collada2POD.User Manual.mht
Version	:	1.2f (PowerVR SDK 2.03.23.1153)
Issue Date	:	11 Jul 2008
Author	:	PowerVR

Contents

1. Introduction

Collada2POD takes a Collada file and converts it to a POD file. If the Collada file contains any GLSL profiles these will be converted to our .PFX file format.

Collada has been a COLLAborative Design Activity for establishing an open standard Digital Asset schema for interactive 3D applications. COLLADA is now a standard of The Khronos Group.

1.1. Known limitations

- Collada2POD only fully supports meshes described with triangles and polylists.
- Animations must not be represented in the collada file as curves, only linearly.
- Skinned animations aren't always exported correctly.

2. Collada2POD Command-Line

2.1. Parameters

Collada2POD supports the following command-line parameters:

```
Collada2POD.exe –i=<input filename> -o=<output filename> -cs<=ogl,=d3d>
```

Note:

- The output filename must either end in .pod or .h. The file extension is used to determine which type of POD file the output will be.
- The -**cs** flag is optional. By default Collada2POD converts the scene to the OpenGL coordinate system (**-cs=ogl**), the **-cs** flag overrides this. To convert the scene to the D3D coordinate system use **-cs=d3d**.
- If the output filename is not specified then the input filename will be used but the extension will be changed to .pod.

Example cases:

```
Collada2POD.exe –i=Duck.dae –o=Duck.pod
```

3. Collada2POD GUI

3.1. The GUI

The Collada2POD GUI contains three tabs and at the bottom of the application are two text fields where you enter the name of the Collada file you wish to convert (input) and the name of the pod file (output) that you wish to convert it to. When both fields are set press the “Convert” button to start the conversion.

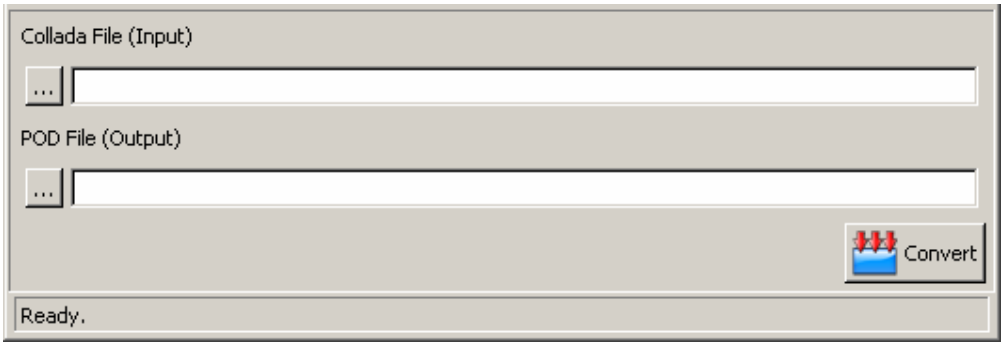

Figure 1 The application bottom

3.2. Options Tab

When the application is first launched you will be greeted with the export options, as shown in Figure 2. The following sections will give a brief description for each option.

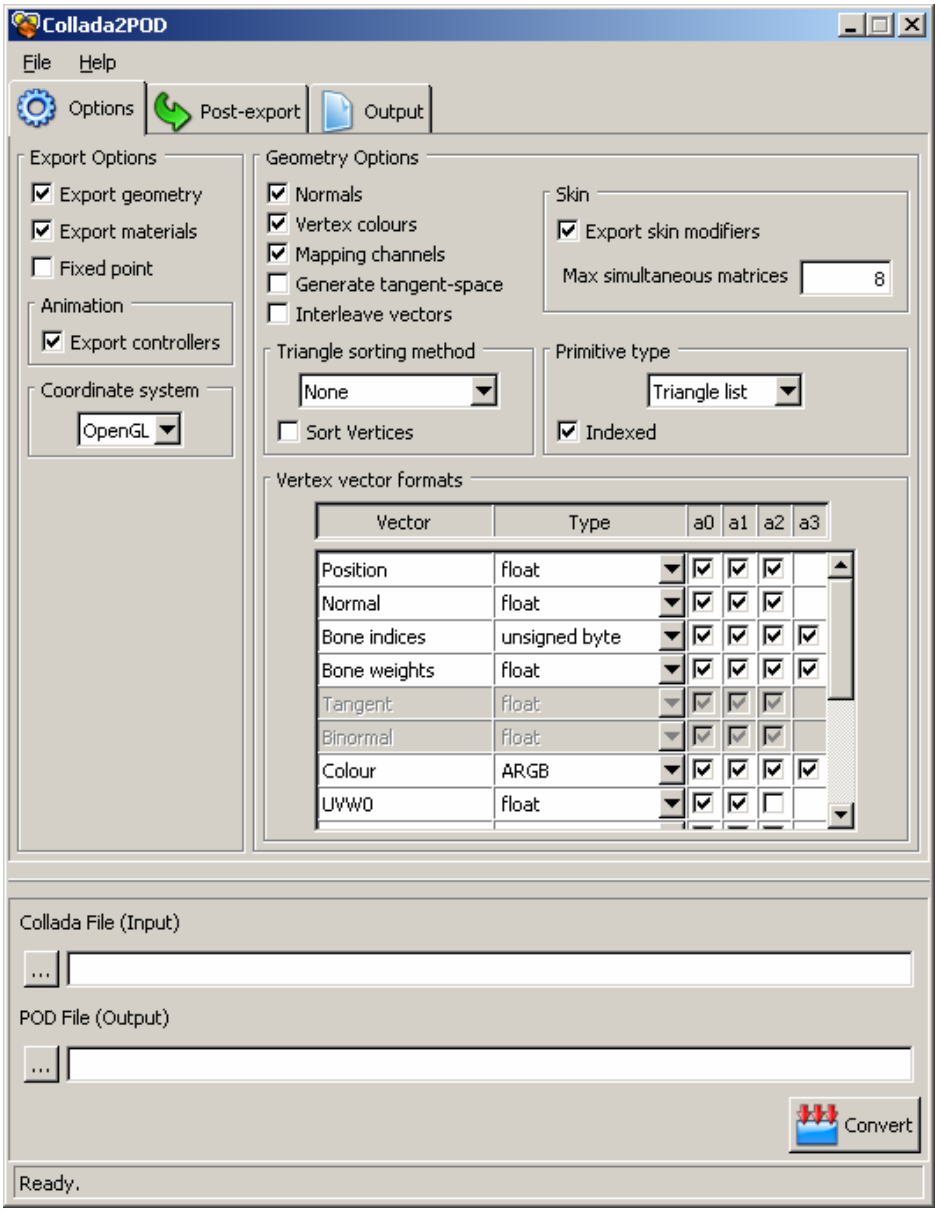

Figure 2 The Collada2POD GUI

3.2.1. Export Options

- Export Geometry – When ticked the geometry will be exported.
- Export Material – When ticked the materials will be exported
- Fixed Point – When ticked the data will be exported in fixed point format.

Export Options – Animation

- Export controllers – When ticked the animation data will be exported.

Export Options – Coordinate system

- The drop down list allows you to select the coordinate system that you wish the data to be exported to.

3.2.2. Geometry Options

- Normals – When ticked the normals will be exported.
- Vertex colours – When ticked the vertex colours will be exported.
- Mapping channels – When ticked the texture mapping channels will be exported.
- Generate tangent-space – When ticked tangents and binormals will be generated.
- Interleave vectors – When ticked the data will be exported interleaved.

Geometry Options – Skin

- Export skin modifiers – When ticked the skinning data will be exported.
- Max simultaneous matrices – The value for this will determine the maximum number of bone matrices that can affect a mesh. If the mesh has more than this value of bone matrices affecting its vertices then the mesh will be split up.

Geometry Options – Triangle sorting method

- Sort Vertices – When ticked the vertices will be sorted using the method chosen by the drop down menu.

Geometry Options – Primitive type

- The drop down menu specifies the primitive type that you want the data exported to, e.g. Triangle Lists.
- Indexed – If ticked then the data will be exported indexed.

Geometry Options – Vertex vector formats

The Vertex vector formats option allows you to customise the vertex data that is output. It consists of 6 columns; the first is Vector which gives a descriptive name to the part of the vertex data that you will be changing. The second is a drop down box that allows you to define the data type. Uses for this can include changing all the float types to fixed16.16 when exporting fixed point data or changing the bone weights to D3DCOLOR when exporting for Directx. The final 4 columns represent the components of the data that you wish to export. For example if you only wanted to export the UV part of the UVW data then the first two columns would be the only ones ticked.

3.3. Post-Export Tab

The second tab is the post-export options tab which is pictured in Figure 3. The options defined are executed on completion of the export.

3.3.1. PVRShaman

The PVRShaman post export options allow you to define the path to PVRShaman and if the “Open in PVRShaman” box is ticked then upon completion the .pod file will be opened up in PVRShaman.

3.3.2. Post-export command-line

The Post-export command-line options allow you to run an application by defining its working directory, the command (the application .exe) and its command-line arguments.

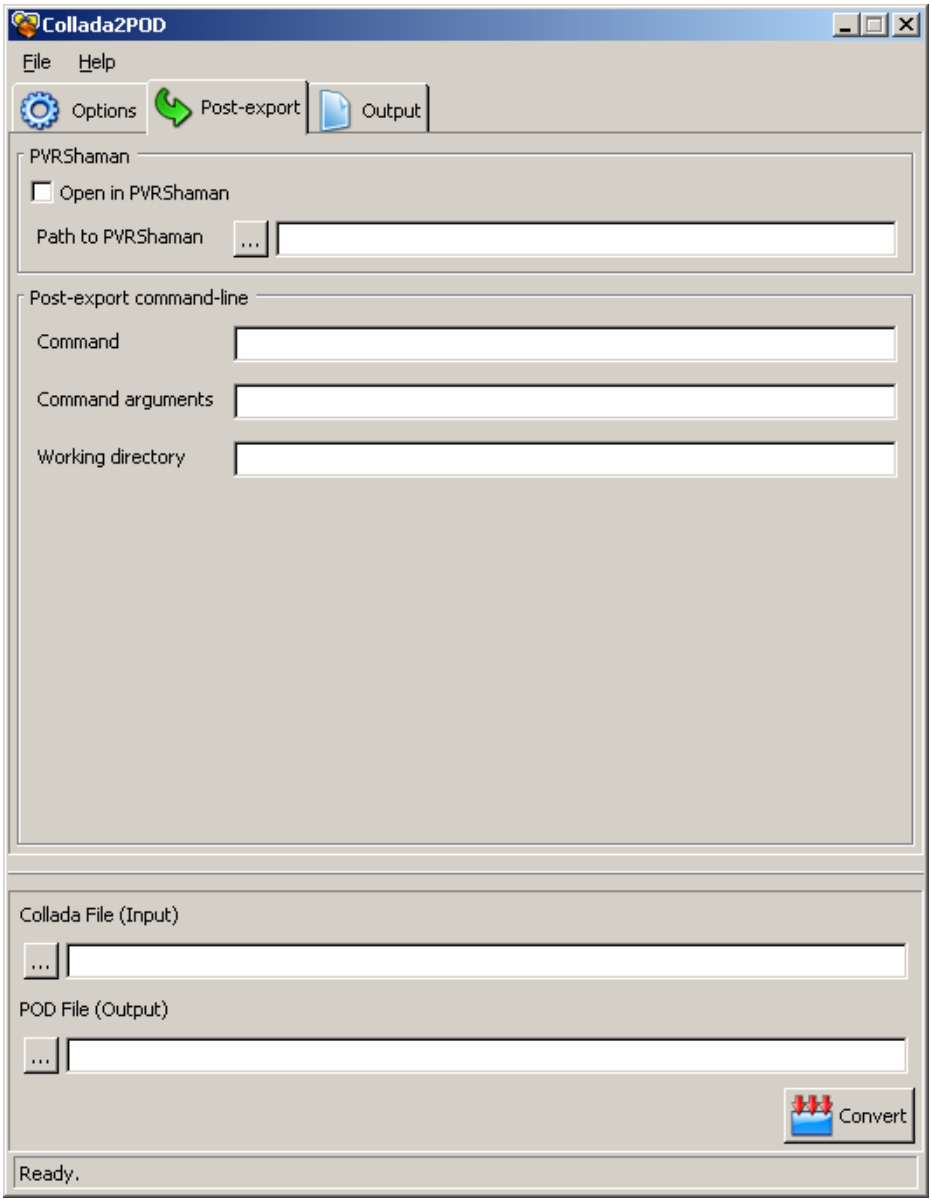

Figure 3 The post-export options.

3.4. Output Tab

The output tab shown in Figure 4 displays the output during the export; this is where any error messages or warnings will be displayed.

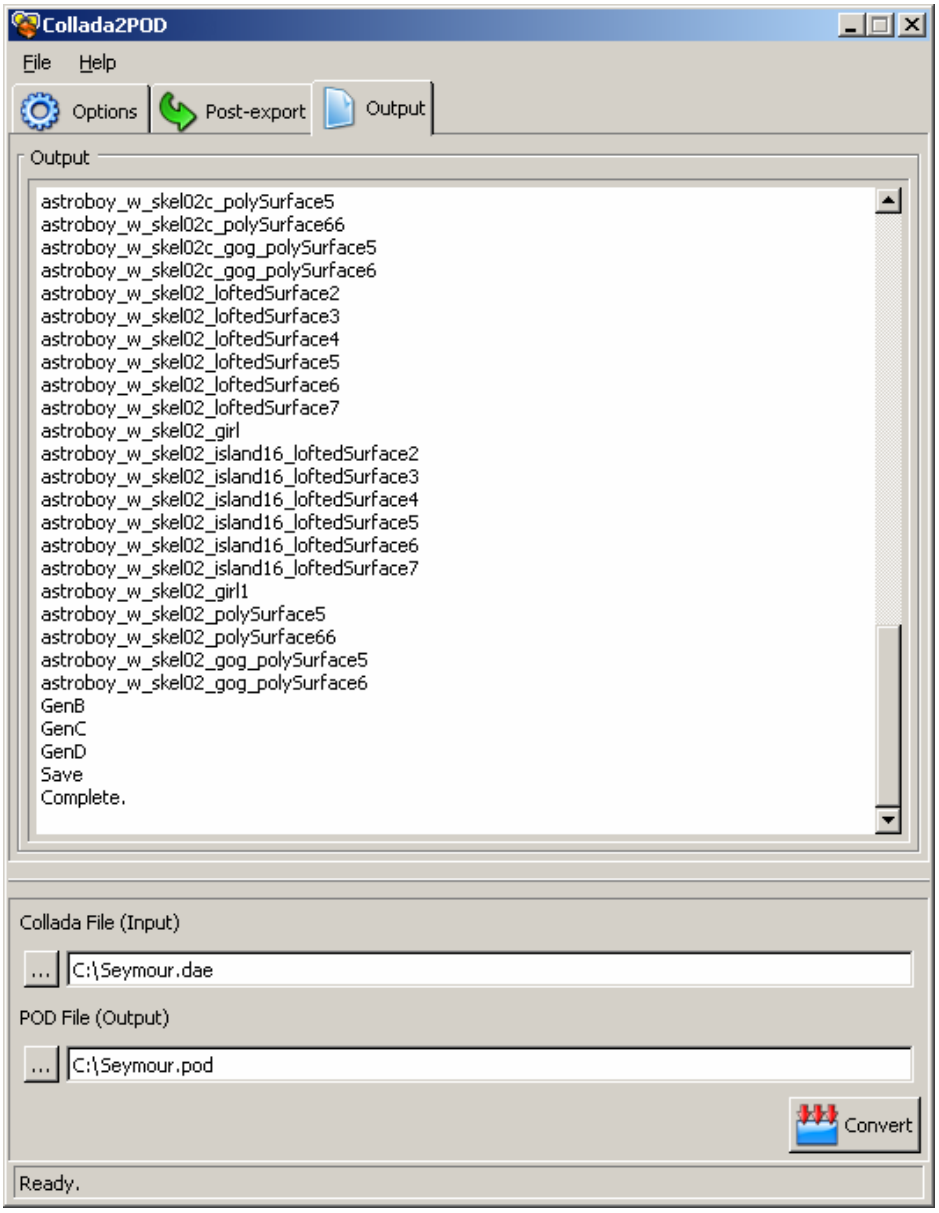

Figure 4 The Output tab.