Polygen3D vector descriptor specification

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1. Introduction

The Polygen3D vector descriptor format is used by Polygen3D to store information related to Polygen3D projects, such as graphic size, surface information and other relevant data. Polygen3D vector descriptor files are created in the group-able colon separated key-value format.

Other applications may implement the Polygen3D vector descriptor format as long as this specification is followed. The specification is subject to change in the future and changes should be reflected on the applications implementing the specification to ensure compatibility with the latest standards. The Polygen3D vector descriptor format uses the .PVD file extension.

2. Content format

Polygen3D vector descriptor files are based on the group-able colon separated key-value format.

2.1 PVD version property

Property key name: pvdversion

The PVD version property indicates the Polygen3D vector descriptor format version the file uses. This must be the first property in the file, and is a required property. The value of this property must be an integer. The current, latest PVD version is 1.

2.2 Generator property

Property key name: generator

The generator property serves as an attribution to the creator of the application used to make the Polygen3D vector descriptor file. The value should be the name of the application used to generate

the file. This property is optional.

2.3 Dimensions property

Property key name: dimension

The dimensions property specifies the height and width of the graphic. The property has two values, height and width, both must be an integer and are required.

2.4 Surface property set

Property name: surface

The surface property set is a property set defining the features of each surface in the project. Surface property sets may occur multiple times in a file, each instance defining one surface.

2.4.1 Surface name property

Property name: name

The surface name property sets the name of the surface in question. This property is only valid inside the surface property set. This property is required for each surface.

2.4.2 Border property

Property name: border

The border property sets the border color of all the polygons in a surface. This property is optional. If set, must be a color in the #rrggbb format. If not set, polygons have no border.

2.4.3 Texture property

Property name: texture

The texture property defines the location of a texture to be applied to a surface. This property is optional. This property may be an absolute path, e.g. "/home/user/Pictures/texture.png" or "C:\Users\user\Pictures\texture.png", or a relative path, e.g. "textures/texture.png". In case of a relative path, the path base should be the directory in which the project file resides.

2.4.4 Position property

Property name: pos

The position property is a multi-value property declaring the position of the surface on the graphic. There are two values: x; declaring the position on the X-axis, and y; declaring the position on the Y-axis. The value of this property must be a positive number, decimals are allowed. The property is optional; defaults to x=0, y=0.

2.4.5 Count property

Property name: count

The count property is a multi-value property declaring the amount of polygons on a surface. There are two values: x; declaring the amount of polygons on the X-axis, and y; declaring the amount of polygons on the Y-axis. The value of this property must be a positive integer. The property is required.

2.4.6 Size property

Property name: size

The size property is a multi-value property declaring the size of all polygons on the surface. There are two values: x; declaring the width of the polygons, and y; declaring the height of the polygons. The value of this property must be a positive number, decimals are allowed. The property is required.

2.4.7 Edge shifting property

Property name: shift

The edge shifting property is a multi-value property declaring how far to the right and bottom each polygon should be shifted on the bottom/right side. There are two values: x; declaring how much the bottom side should be shifted right relative to the top side, and y; declaring how much the right side should be shifted down relative to the left side. The value of this property must be a positive or negative number, decimals are allowed. This property is optional; defaults to 0, 0.