# Polyphony Middleware API Specification

Kenji Ishimaru <kenji.ishimaru@ipvisers.com>

## **Revision History**

Rev.	Date	Author	Description
0.9	2020/06/30	Kenji Ishimaru	First release

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#### 1 Introduction

This document describes C Application Programming Interface (API) for Polyphony.

## 2 System Control API

Table 1 Initialize/Buffer swap API

Name	Description	
gl_init	Initialize graphics API and software Geometry	
	Engine.	
wait_vsync	Wait for v-sync and swap frame buffers (front and	
	back buffer).	

## 3 Graphics API

#### 3 - 1 GLES API

The following GLES APIs (Table 2) are partially implemented.

Table 2 GLES API

Name	
glViewport	
glFrustumf	
glOrthof	
glMatrixMode	
${\tt glCurrentPaletteMatrixOES}$	
${\tt glLoadPaletteFromModelViewMatrixOES}$	
glLoadIdentity	
glTranslatef	
glScalef	
glRotatef	
glClearColor	
glColorMask	
glClear	

glClearDepthf	
glDepthFunc	
glTexParameteri	
glTexImage2D	
${\tt glCompressedTexImage2D}$	
glTexCoord2f glGenTextures	
glEnable	
glDisable	
glShadeModel	
glLightf	
glLightfv	
glLightModelf	
glLightModelfv	
glMaterialf	
glMaterialfv	
glColorMaterial	
glEnableClientState	
glDisableClientState	
glColorPointer	
glNormalPointer	
glTexCoordPointer	
glVertexPointer	
glMatrixIndexPointerOES	
glDrawArrays	
glCullFace	
glFrontFace	
glPopMatrix	
glPushMatrix	
glFinish	
glFlush	
glMultMatrixf	

#### 3 - 2 GL API

The following GL APIs (Table 3) are partially implemented.

Table 3 GL API

Name	
glBegin	
glEnd	
glColor3f	
glColor4f	
glVertex3f	
glNormal3f	
glTexCoord2f	

#### 3-3 GLU API

The following GLU APIs (Table 4) are partially implemented.

Table 4 GLU API

Name
gluLookAt
gluPerspective