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|  |  |
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Content

[**1.** **Overview** 8](#_Toc182250134)

[**1.1.** **Introduction** 8](#_Toc182250135)

[**1.2.** **Note** 8](#_Toc182250136)

[**1.3.** **Links** 8](#_Toc182250137)

[**2.** **Eco.OpenGLES1 Component** 9](#_Toc182250138)

[**3.** **IEcoOpenGLES1 Interface** 10](#_Toc182250139)

[**3.1.** **IEcoOpenGLES1 IDL** 10](#_Toc182250140)

[**3.1.1.** **get\_Commands function** 11](#_Toc182250141)

[**3.1.2.** **CreateContext function** 11](#_Toc182250142)

[**3.1.3.** **MakeCurrent function** 11](#_Toc182250143)

[**3.1.4.** **QueryInfo function** 11](#_Toc182250144)

[**3.1.5.** **SwapBuffers function** 11](#_Toc182250145)

[**4.** **IEcoOpenGLES1Context Interface** 12](#_Toc182250146)

[**4.1.** **IEcoOpenGLES1Context IDL** 12](#_Toc182250147)

[**4.1.1.** **function** 13](#_Toc182250148)

[**5.** **IEcoOpenGLES1Common Interface** 14](#_Toc182250149)

[**5.1.** **IEcoOpenGLES1Common IDL** 14](#_Toc182250150)

[**5.1.1.** **AlphaFunc function** 16](#_Toc182250151)

[**5.1.2.** **ClearColor function** 16](#_Toc182250152)

[**5.1.3.** **ClearDepthf function** 16](#_Toc182250153)

[**5.1.4.** **ClipPlanef function** 16](#_Toc182250154)

[**5.1.5.** **Color4f function** 16](#_Toc182250155)

[**5.1.6.** **DepthRangef function** 16](#_Toc182250156)

[**5.1.7.** **Fogf function** 16](#_Toc182250157)

[**5.1.8.** **Fogfv function** 16](#_Toc182250158)

[**5.1.9.** **Frustumf function** 16](#_Toc182250159)

[**5.1.10.** **GetClipPlanef function** 16](#_Toc182250160)

[**5.1.11.** **GetFloatv function** 17](#_Toc182250161)

[**5.1.12.** **GetLightfv function** 17](#_Toc182250162)

[**5.1.13.** **GetMaterialfv function** 17](#_Toc182250163)

[**5.1.14.** **GetTexEnvfv function** 17](#_Toc182250164)

[**5.1.15.** **GetTexParameterfv function** 17](#_Toc182250165)

[**5.1.16.** **LightModelf function** 17](#_Toc182250166)

[**5.1.17.** **LightModelfv function** 17](#_Toc182250167)

[**5.1.18.** **Lightf function** 17](#_Toc182250168)

[**5.1.19.** **Lightfv function** 17](#_Toc182250169)

[**5.1.20.** **LineWidth function** 18](#_Toc182250170)

[**5.1.21.** **LoadMatrixf function** 18](#_Toc182250171)

[**5.1.22.** **Materialf function** 18](#_Toc182250172)

[**5.1.23.** **Materialfv function** 18](#_Toc182250173)

[**5.1.24.** **MultMatrixf function** 18](#_Toc182250174)

[**5.1.25.** **MultiTexCoord4f function** 18](#_Toc182250175)

[**5.1.26.** **Normal3f function** 18](#_Toc182250176)

[**5.1.27.** **Orthof function** 18](#_Toc182250177)

[**5.1.28.** **PointParameterf function** 18](#_Toc182250178)

[**5.1.29.** **PointParameterfv function** 18](#_Toc182250179)

[**5.1.30.** **PointSize function** 19](#_Toc182250180)

[**5.1.31.** **PolygonOffset function** 19](#_Toc182250181)

[**5.1.32.** **Rotatef function** 19](#_Toc182250182)

[**5.1.33.** **Scalef function** 19](#_Toc182250183)

[**5.1.34.** **TexEnvf function** 19](#_Toc182250184)

[**5.1.35.** **TexEnvfv function** 19](#_Toc182250185)

[**5.1.36.** **TexParameterf function** 19](#_Toc182250186)

[**5.1.37.** **TexParameterfv function** 19](#_Toc182250187)

[**5.1.38.** **Translatef function** 19](#_Toc182250188)

[**6.** **IEcoOpenGLES1CommonLite Interface** 20](#_Toc182250189)

[**6.1.** **IEcoOpenGLES1CommonLite IDL** 20](#_Toc182250190)

[**6.1.1.** **ActiveTexture function** 25](#_Toc182250191)

[**6.1.2.** **AlphaFuncx function** 25](#_Toc182250192)

[**6.1.3.** **BindBuffer function** 25](#_Toc182250193)

[**6.1.4.** **BindTexture function** 25](#_Toc182250194)

[**6.1.5.** **BlendFunc function** 25](#_Toc182250195)

[**6.1.6.** **Clear function** 25](#_Toc182250196)

[**6.1.7.** **ClearColorx function** 25](#_Toc182250197)

[**6.1.8.** **ClearDepthx function** 25](#_Toc182250198)

[**6.1.9.** **ClearStencil function** 25](#_Toc182250199)

[**6.1.10.** **ClientActiveTexture function** 25](#_Toc182250200)

[**6.1.11.** **ClipPlanex function** 26](#_Toc182250201)

[**6.1.12.** **Color4ub function** 26](#_Toc182250202)

[**6.1.13.** **Color4x function** 26](#_Toc182250203)

[**6.1.14.** **ColorMask function** 26](#_Toc182250204)

[**6.1.15.** **ColorPointer function** 26](#_Toc182250205)

[**6.1.16.** **CompressedTexImage2D function** 26](#_Toc182250206)

[**6.1.17.** **CompressedTexSubImage2D function** 26](#_Toc182250207)

[**6.1.18.** **CopyTexImage2D function** 26](#_Toc182250208)

[**6.1.19.** **CopyTexSubImage2D function** 26](#_Toc182250209)

[**6.1.20.** **CullFace function** 27](#_Toc182250210)

[**6.1.21.** **DeleteBuffers function** 27](#_Toc182250211)

[**6.1.22.** **DeleteTextures function** 27](#_Toc182250212)

[**6.1.23.** **DepthFunc function** 27](#_Toc182250213)

[**6.1.24.** **DepthMask function** 27](#_Toc182250214)

[**6.1.25.** **DepthRangex function** 27](#_Toc182250215)

[**6.1.26.** **Disable function** 27](#_Toc182250216)

[**6.1.27.** **DisableClientState function** 27](#_Toc182250217)

[**6.1.28.** **DrawArrays function** 27](#_Toc182250218)

[**6.1.29.** **DrawElements function** 27](#_Toc182250219)

[**6.1.30.** **Enable function** 28](#_Toc182250220)

[**6.1.31.** **EnableClientState function** 28](#_Toc182250221)

[**6.1.32.** **Finish function** 28](#_Toc182250222)

[**6.1.33.** **Flush function** 28](#_Toc182250223)

[**6.1.34.** **Fogx function** 28](#_Toc182250224)

[**6.1.35.** **Fogxv function** 28](#_Toc182250225)

[**6.1.36.** **FrontFace function** 28](#_Toc182250226)

[**6.1.37.** **Frustumx function** 28](#_Toc182250227)

[**6.1.38.** **GetBooleanv function** 28](#_Toc182250228)

[**6.1.39.** **GetBufferParameteriv function** 29](#_Toc182250229)

[**6.1.40.** **GetClipPlanex function** 29](#_Toc182250230)

[**6.1.41.** **GenBuffers function** 29](#_Toc182250231)

[**6.1.42.** **GenTextures function** 29](#_Toc182250232)

[**6.1.43.** **GetError function** 29](#_Toc182250233)

[**6.1.44.** **GetFixedv function** 29](#_Toc182250234)

[**6.1.45.** **GetIntegerv function** 29](#_Toc182250235)

[**6.1.46.** **GetLightxv function** 29](#_Toc182250236)

[**6.1.47.** **GetMaterialxv function** 29](#_Toc182250237)

[**6.1.48.** **GetPointerv function** 29](#_Toc182250238)

[**6.1.49.** **glGetString function** 30](#_Toc182250239)

[**6.1.50.** **GetTexEnviv function** 30](#_Toc182250240)

[**6.1.51.** **GetTexEnvxv function** 30](#_Toc182250241)

[**6.1.52.** **GetTexParameteriv function** 30](#_Toc182250242)

[**6.1.53.** **GetTexParameterxv function** 30](#_Toc182250243)

[**6.1.54.** **Hint function** 30](#_Toc182250244)

[**6.1.55.** **IsBuffer function** 30](#_Toc182250245)

[**6.1.56.** **IsEnabled function** 30](#_Toc182250246)

[**6.1.57.** **IsTexture function** 30](#_Toc182250247)

[**6.1.58.** **LightModelx function** 31](#_Toc182250248)

[**6.1.59.** **LightModelxv function** 31](#_Toc182250249)

[**6.1.60.** **Lightx function** 31](#_Toc182250250)

[**6.1.61.** **Lightxv function** 31](#_Toc182250251)

[**6.1.62.** **LineWidthx function** 31](#_Toc182250252)

[**6.1.63.** **LoadIdentity function** 31](#_Toc182250253)

[**6.1.64.** **LoadMatrixx function** 31](#_Toc182250254)

[**6.1.65.** **LogicOp function** 31](#_Toc182250255)

[**6.1.66.** **Materialx function** 31](#_Toc182250256)

[**6.1.67.** **Materialxv function** 31](#_Toc182250257)

[**6.1.68.** **MatrixMode function** 32](#_Toc182250258)

[**6.1.69.** **MultMatrixx function** 32](#_Toc182250259)

[**6.1.70.** **MultiTexCoord4x function** 32](#_Toc182250260)

[**6.1.71.** **Normal3x function** 32](#_Toc182250261)

[**6.1.72.** **NormalPointer function** 32](#_Toc182250262)

[**6.1.73.** **Orthox function** 32](#_Toc182250263)

[**6.1.74.** **PixelStorei function** 32](#_Toc182250264)

[**6.1.75.** **PointParameterx function** 32](#_Toc182250265)

[**6.1.76.** **PointParameterxv function** 32](#_Toc182250266)

[**6.1.77.** **PointSizex function** 33](#_Toc182250267)

[**6.1.78.** **PolygonOffsetx function** 33](#_Toc182250268)

[**6.1.79.** **PopMatrix function** 33](#_Toc182250269)

[**6.1.80.** **PushMatrix function** 33](#_Toc182250270)

[**6.1.81.** **ReadPixels function** 33](#_Toc182250271)

[**6.1.82.** **Rotatex function** 33](#_Toc182250272)

[**6.1.83.** **SampleCoverage function** 33](#_Toc182250273)

[**6.1.84.** **SampleCoveragex function** 33](#_Toc182250274)

[**6.1.85.** **Scalex function** 33](#_Toc182250275)

[**6.1.86.** **Scissor function** 33](#_Toc182250276)

[**6.1.87.** **ShadeModel function** 34](#_Toc182250277)

[**6.1.88.** **StencilFunc function** 34](#_Toc182250278)

[**6.1.89.** **StencilMask function** 34](#_Toc182250279)

[**6.1.90.** **StencilOp function** 34](#_Toc182250280)

[**6.1.91.** **TexCoordPointer function** 34](#_Toc182250281)

[**6.1.92.** **TexEnvi function** 34](#_Toc182250282)

[**6.1.93.** **TexEnvx function** 34](#_Toc182250283)

[**6.1.94.** **TexEnviv function** 34](#_Toc182250284)

[**6.1.95.** **TexEnvxv function** 34](#_Toc182250285)

[**6.1.96.** **TexImage2D function** 35](#_Toc182250286)

[**6.1.97.** **TexParameteri function** 35](#_Toc182250287)

[**6.1.98.** **TexParameterx function** 35](#_Toc182250288)

[**6.1.99.** **TexParameteriv function** 35](#_Toc182250289)

[**6.1.100.** **TexParameterxv function** 35](#_Toc182250290)

[**6.1.101.** **TexSubImage2D function** 35](#_Toc182250291)

[**6.1.102.** **Translatex function** 35](#_Toc182250292)

[**6.1.103.** **VertexPointer function** 35](#_Toc182250293)

[**6.1.104.** **Viewport function** 35](#_Toc182250294)

[**7.** **IEcoVideoCoreIV1V3DContext Interface** 36](#_Toc182250295)

[**7.1.** **IEcoVideoCoreIV1V3DContext IDL** 36](#_Toc182250296)

[**7.1.1.** **AllocMemBuffer function** 37](#_Toc182250297)

[**7.1.2.** **FreeMemBuffer function** 37](#_Toc182250298)

[**7.1.3.** **get\_ControlList function** 37](#_Toc182250299)

[**7.1.4.** **set\_ControlList function** 37](#_Toc182250300)

[**7.1.5.** **EmitControlRecord function** 37](#_Toc182250301)

[**7.1.6.** **RenderFrame function** 37](#_Toc182250302)

[**8.** **IEcoVideoCoreIV1V3DRegisters Interface** 38](#_Toc182250303)

[**8.1.** **IEcoVideoCoreIV1V3DRegisters IDL** 38](#_Toc182250304)

[**8.1.1.** **set\_ConfigDescriptor function** 39](#_Toc182250305)

[**8.1.2.** **get\_ConfigDescriptor function** 39](#_Toc182250306)

[**9.** **IEcoOpenGLES1iOS Interface** 40](#_Toc182250307)

[**9.1.** **IEcoOpenGLES1iOS IDL** 40](#_Toc182250308)

[**9.1.1.** **CreateContextByPlatform function** 41](#_Toc182250309)

[**9.1.2.** **get\_Context function** 41](#_Toc182250310)

[**9.1.3.** **get\_PixelFormat function** 41](#_Toc182250311)

[**10.** **IEcoOpenGLES1Linux Interface** 42](#_Toc182250312)

[**10.1.** **IEcoOpenGLES1Linux IDL** 42](#_Toc182250313)

[**10.1.1.** **CreateContextByPlatform function** 43](#_Toc182250314)

[**10.1.2.** **get\_Display function** 43](#_Toc182250315)

[**10.1.3.** **get\_Window function** 43](#_Toc182250316)

[**11.** **IEcoOpenGLES1MacOSX Interface** 44](#_Toc182250317)

[**11.1.** **IEcoOpenGLES1MacOSX IDL** 44](#_Toc182250318)

[**11.1.1.** **CreateContextByPlatform function** 45](#_Toc182250319)

[**11.1.2.** **get\_Context function** 45](#_Toc182250320)

[**11.1.3.** **get\_PixelFormat function** 45](#_Toc182250321)

[**12.** **IEcoOpenGLES1Windows Interface** 46](#_Toc182250322)

[**12.1.** **IEcoOpenGLES1Windows IDL** 46](#_Toc182250323)

[**12.1.1.** **CreateContextByPlatform function** 47](#_Toc182250324)

[**12.1.2.** **get\_DeviceContext function** 47](#_Toc182250325)

[**13.** **IEcoOpenGLES1Android Interface** 48](#_Toc182250326)

[**13.1.** **IEcoOpenGLES1Android IDL** 48](#_Toc182250327)

[**13.1.1.** **CreateContextByPlatform function** 49](#_Toc182250328)

[**13.1.2.** ***get\_Window* function** 49](#_Toc182250329)

[**14.** **Коды ошибок** 50](#_Toc182250330)

[**Приложение А: Обучающие программы** 51](#_Toc182250331)

1. **Overview**

This document describes the requirements for the implementation of the Eco.OpenGLES1 component. (Component)

* 1. **Introduction**

Description.

* 1. **Note**
* Keywords
  1. **Links**

This paragraph contains links to information to help you understand this document:

[] – name of the link

Available by: http://address

1. **Eco.OpenGLES1 Component**

The Eco.OpenGLES1 component is

The component has the following description:

1. **IEcoOpenGLES1 Interface**
   1. **IEcoOpenGLES1 IDL**

|  |
| --- |
| **ECO IDL** |
| import "IEcoBase1.idl"  import "IEcoOpenGLES1Context.idl"  import "IEcoOpenGLES1Common.idl" | | | |
| [  object,  uguid(D9DC3C5A-23D5-4582-A722-F7797F14D499),  ] | | | |
| interface IEcoOpenGLES1 : IEcoUnknown { | | | |
|  | | | |
| IEcoUnknown\* | | ***get\_Commands*** | ([in] uint8\_t profileId); |
|  | |  |  |
| int16\_t | | ***CreateContext*** | ([in] IEcoUnknown\* pIVD,  [out] IEcoOpenGLES1Context\*\* ppIRenderContext); |
|  | |  |  |
| int16\_t | | ***MakeCurrent*** | ([in] IEcoOpenGLES1Context\* pIRenderContext); |
|  | |  |  |
| bool\_t | | ***QueryInfo*** | ([in] uint16\_t attr,  [in] voidptr\_t value); |
|  | |  |  |
| bool\_t | | ***SwapBuffers*** | ([in] void); |
|  | |  |  |
| } | |  |  |

* + 1. **get\_Commands function**

The function

* + 1. **CreateContext function**

The function

* + 1. **MakeCurrent function**

The function

* + 1. **QueryInfo function**

The function

* + 1. **SwapBuffers function**

The function

1. **IEcoOpenGLES1Context Interface**
   1. **IEcoOpenGLES1Context IDL**

|  |
| --- |
| **ECO IDL** |
| import "IEcoBase1.idl" | | | |
| [  object,  uguid(3789C62D-3299-467B-9F58-2D6A7EF465A7),  ] | | | |
| interface IEcoOpenGLES1Context : IEcoUnknown { | | | |
|  | | | |
|  | |  |  |
|  | | | |
|  | |  |  |
|  | |  |  |
|  | |  |  |
|  | | | |
| } | |  |  |

* + 1. **function**

The function

1. **IEcoOpenGLES1Common Interface**
   1. **IEcoOpenGLES1Common IDL**

|  |
| --- |
| **ECO IDL** |
| import "IEcoBase1.idl"  import "IEcoOpenGLES1CommonLite.idl" | | | |
| [  object,  uguid(9EA8520D-5626-4C6F-AFA6-18179C9F5AEE),  ] | | | |
| interface IEcoOpenGLES1Common : IEcoUnknown { | | | |
|  | | | |
| void | | ***AlphaFunc*** | ([in] GLenum func,  [in] GLclampf ref); |
| void | | ***ClearColor*** | ([in] GLclampf red,  [in] GLclampf green,  [in] GLclampf blue,  [in] GLclampf alpha); |
| void | | ***ClearDepthf*** | ([in] GLclampf depth); |
| void | | ***ClipPlanef*** | ([in] GLenum plane,  [in] const GLfloat \*equation); |
| void | | ***Color4f*** | ([in] GLfloat red,  [in] GLfloat green,  [in] GLfloat blue,  [in] GLfloat alpha); |
| void | | ***DepthRangef*** | ([in] GLclampf zNear,  [in] GLclampf zFar); |
| void | | ***Fogf*** | ([in] GLenum pname,  [in] GLfloat param); |
| void | | ***Fogfv*** | ([in] GLenum pname,  [in] const GLfloat \*params); |
| void | | ***Frustumf*** | ([in] GLfloat left,  [in] GLfloat right,  [in] GLfloat bottom,  [in] GLfloat top,  [in] GLfloat zNear,  [in] GLfloat zFar); |
| void | | ***GetClipPlanef*** | ([in] GLenum pname,  [in] GLfloat eqn[4]); |
| void | | ***GetFloatv*** | ([in] GLenum pname,  [in] GLfloat \*params); |
| void | | ***GetLightfv*** | ([in] GLenum light,  [in] GLenum pname,  [in] GLfloat \*params); |
| void | | ***GetMaterialfv*** | ([in] GLenum face,  [in] GLenum pname,  [in] GLfloat \*params); |
| void | | ***GetTexEnvfv*** | ([in] GLenum env,  [in] GLenum pname,  [in] GLfloat \*params); |
| void | | ***GetTexParameterfv*** | ([in] GLenum target,  [in] GLenum pname,  [in] GLfloat \*params); |
| void | | ***LightModelf*** | ([in] GLenum pname,  [in] GLfloat param); |
| void | | ***LightModelfv*** | ([in] GLenum pname,  [in] const GLfloat \*params); |
| void | | ***Lightf*** | ([in] GLenum light,  [in] GLenum pname,  [in] GLfloat param); |
| void | | ***Lightfv*** | ([in] GLenum light,  [in] GLenum pname,  [in] const GLfloat \*params); |
| void | | ***LineWidth*** | ([in] GLfloat width); |
| void | | ***LoadMatrixf*** | ([in] const GLfloat \*m); |
| void | | ***Materialf*** | ([in] GLenum face,  [in] GLenum pname,  [in] GLfloat param); |
| void | | ***Materialfv*** | ([in] GLenum face,  [in] GLenum pname,  [in] const GLfloat \*params); |
| void | | ***MultMatrixf*** | ([in] const GLfloat \*m); |
| void | | ***MultiTexCoord4f*** | ([in] GLenum target,  [in] GLfloat s,  [in] GLfloat t,  [in] GLfloat r,  [in] GLfloat q); |
| void | | ***Normal3f*** | ([in] GLfloat nx,  [in] GLfloat ny,  [in] GLfloat nz); |
| void | | ***Orthof*** | ([in] GLfloat left,  [in] GLfloat right,  [in] GLfloat bottom,  [in] GLfloat top,  [in] GLfloat zNear,  [in] GLfloat zFar); |
| void | | ***PointParameterf*** | ([in] GLenum pname,  [in] GLfloat param); |
| void | | ***PointParameterfv*** | ([in] GLenum pname,  [in] const GLfloat \*params); |
| void | | ***PointSize*** | ([in] GLfloat size); |
| void | | ***PolygonOffset*** | ([in] GLfloat factor,  [in] GLfloat units); |
| void | | ***Rotatef*** | ([in] GLfloat angle,  [in] GLfloat x,  [in] GLfloat y,  [in] GLfloat z); |
| void | | ***Scalef*** | ([in] GLfloat x,  [in] GLfloat y,  [in] GLfloat z); |
| void | | ***TexEnvf*** | ([in] GLenum target,  [in] GLenum pname,  [in] GLfloat param); |
| void | | ***TexEnvfv*** | ([in] GLenum target,  [in] GLenum pname,  [in] const GLfloat \*params); |
| void | | ***TexParameterf*** | ([in] GLenum target,  [in] GLenum pname,  [in] GLfloat param); |
| void | | ***TexParameterfv*** | ([in] GLenum target,  [in] GLenum pname,  [in] const GLfloat \*params); |
| void | | ***Translatef*** | ([in] GLfloat x,  [in] GLfloat y,  [in] GLfloat z); |
|  | |  |  |
| } | |  |  |

* + 1. **AlphaFunc function**

The function

* + 1. **ClearColor function**

The function

* + 1. **ClearDepthf function**

The OES single precision commands extension function creates new command options with single precision parameters for commands that do not have such options

* + 1. **ClipPlanef function**

The function

* + 1. **Color4f function**

The function

* + 1. **DepthRangef function**

The OES single precision commands extension function creates new command options with single precision parameters for commands that do not have such options

* + 1. **Fogf function**

The function is useful for entertainment applications as a way to manage frame rate while hiding drawing mistakes.

* + 1. **Fogfv function**

The function is useful for entertainment applications as a way to manage frame rate while hiding drawing mistakes.

* + 1. **Frustumf function**

The OES single precision commands extension function creates new command options with single precision parameters for commands that do not have such options

* + 1. **GetClipPlanef function**

The function supports clipping relative to the truncated view contour; however, individual user-defined clipping planes are not supported

* + 1. **GetFloatv function**

The function

* + 1. **GetLightfv function**

The function

* + 1. **GetMaterialfv function**

The function

* + 1. **GetTexEnvfv function**

The function

* + 1. **GetTexParameterfv function**

The function

* + 1. **LightModelf function**

The function

* + 1. **LightModelfv function**

The function

* + 1. **Lightf function**

The function

* + 1. **Lightfv function**

The function

* + 1. **LineWidth function**

The function

* + 1. **LoadMatrixf function**

The function

* + 1. **Materialf function**

The function Materialf cannot independently change the front and back face properties, so the result is that materials always have the same front and back properties. Two-sided lighting is supported,through the front and back material properties used in the lighting computation will also be equal.

* + 1. **Materialfv function**

The function Materialv cannot independently change the front and back face properties, so the result is that materials always have the same front and back properties. Two-sided lighting is supported,through the front and back material properties used in the lighting computation will also be equal.

* + 1. **MultMatrixf function**

The function

* + 1. **MultiTexCoord4f function**

The function

* + 1. **Normal3f function**

The function

* + 1. **Orthof function**

The OES single precision commands extension function creates new command options with single precision parameters for commands that do not have such options

* + 1. **PointParameterf function**

The function

* + 1. **PointParameterfv function**

The function

* + 1. **PointSize function**

The function

* + 1. **PolygonOffset function**

The function

* + 1. **Rotatef function**

The function

* + 1. **Scalef function**

The function

* + 1. **TexEnvf function**

The function

* + 1. **TexEnvfv function**

The function

* + 1. **TexParameterf function**

The function

* + 1. **TexParameterfv function**

The function

* + 1. **Translatef function**

The function

1. **IEcoOpenGLES1CommonLite Interface**
   1. **IEcoOpenGLES1CommonLite IDL**

|  |
| --- |
| **ECO IDL** |
| import "IEcoBase1.idl" | | | |
| [  object,  uguid(55C254A6-76CC-4F02-A751-53BAD68EA858),  ] | | | |
| interface IEcoOpenGLES1CommonLite : IEcoUnknown { | | | |
|  | | | |
| void | | ActiveTexture | ([in] GLenum texture); |
| void | | AlphaFuncx | ([in] GLenum func,   [in] GLclampx ref); |
| void | | BindBuffer | ([in] GLenum target,   [in] GLuint buffer); |
| void | | BindTexture | ([in] GLenum target,   [in] GLuint texture); |
| void | | BlendFunc | ([in] GLenum sfactor,   [in] GLenum dfactor); |
| void | | Clear | ([in] GLbitfield mask); |
| void | | ClearColorx | ([in] GLclampx red,   [in] GLclampx green,   [in] GLclampx blue,   [in] GLclampx alpha); |
| void | | ClearDepthx | ([in] GLclampx depth); |
| void | | ClearStencil | ([in] GLint s); |
| void | | ClientActiveTexture | ([in] GLenum texture); |
| void | | ClipPlanex | ([in] GLenum plane,   [in] const GLfixed \*equation); |
| void | | Color4ub | ([in] GLubyte red,   [in] GLubyte green,   [in] GLubyte blue,   [in] GLubyte alpha); |
| void | | Color4x | ([in] GLfixed red,   [in] GLfixed green,   [in] GLfixed blue,   [in] GLfixed alpha); |
| void | | ColorMask | ([in] GLboolean red,   [in] GLboolean green,   [in] GLboolean blue,   [in] GLboolean alpha); |
| void | | ColorPointer | ([in] GLint size,   [in] GLenum type,   [in] GLsizei stride,   [in] const GLvoid \*pointer); |
| void | | CompressedTexImage2D | ([in] GLenum target,   [in] GLint level,   [in] GLenum internalformat,   [in] GLsizei width,   [in] GLsizei height,   [in] GLint border,   [in] GLsizei imageSize,   [in] const GLvoid \*data); |
| void | | CompressedTexSubImage2D | ([in] GLenum target,   [in] GLint level,   [in] GLint xoffset,   [in] GLint yoffset,   [in] GLsizei width,   [in] GLsizei height,   [in] GLenum format,   [in] GLsizei imageSize,   [in] const GLvoid \*data); |
| void | | CopyTexImage2D | ([in] GLenum target,   [in] GLint level,   [in] GLenum internalformat,   [in] GLint x,   [in] GLint y,   [in] GLsizei width,   [in] GLsizei height,   [in] GLint border); |
| void | | CopyTexSubImage2D | ([in] GLenum target,   [in] GLint level,   [in] GLint xoffset,   [in] GLint yoffset,   [in] GLint x,   [in] GLint y,   [in] GLsizei width,   [in] GLsizei height); |
| void | | CullFace | ([in] GLenum mode); |
| void | | DeleteBuffers | ([in] GLsizei n,   [in] const GLuint \*buffers); |
| void | | DeleteTextures | ([in] GLsizei n,   [in] const GLuint \*textures); |
| void | | DepthFunc | ([in] GLenum func); |
| void | | DepthMask | ([in] GLboolean flag); |
| void | | DepthRangex | ([in] GLclampx zNear,   [in] GLclampx zFar); |
| void | | Disable | ([in] GLenum cap); |
| void | | DisableClientState | ([in] GLenum array); |
| void | | DrawArrays | ([in] GLenum mode,   [in] GLint first,   [in] GLsizei count); |
| void | | DrawElements | ([in] GLenum mode,   [in] GLsizei count,   [in] GLenum type,   [in] const GLvoid \*indices); |
| void | | Enable | ([in] GLenum cap); |
| void | | EnableClientState | ([in] GLenum array); |
| void | | Finish | ([in] void); |
| void | | Flush | ([in] void); |
| void | | Fogx | ([in] GLenum pname,   [in] GLfixed param); |
| void | | Fogxv | ([in] GLenum pname,   [in] const GLfixed \*params); |
| void | | FrontFace | ([in] GLenum mode); |
| void | | Frustumx | ([in] GLfixed left,   [in] GLfixed right,   [in] GLfixed bottom,   [in] GLfixed top,   [in] GLfixed zNear,   [in] GLfixed zFar); |
| void | | GetBooleanv | ([in] GLenum pname,   [in] GLboolean \*params); |
| void | | GetBufferParameteriv | ([in] GLenum target,   [in] GLenum pname,   [in] GLint \*params); |
| void | | GetClipPlanex | ([in] GLenum pname,   [in] GLfixed eqn[4]); |
| void | | GenBuffers | ([in] GLsizei n,   [in] GLuint \*buffers); |
| void | | GenTextures | ([in] GLsizei n,   [in] GLuint \*textures); |
| GLenum | | GetError | ([in] void); |
| void | | GetFixedv | ([in] GLenum pname,   [in] GLfixed \*params); |
| void | | GetIntegerv | ([in] GLenum pname,   [in] GLint \*params); |
| void | | GetLightxv | ([in] GLenum light,   [in] GLenum pname,   [in] GLfixed \*params); |
| void | | GetMaterialxv | ([in] GLenum face,   [in] GLenum pname,   [in] GLfixed \*params); |
| void | | GetPointerv | ([in] GLenum pname,   [in] GLvoid \*\*params); |
| const GLubyte\* | | glGetString | ([in] GLenum name); |
| void | | GetTexEnviv | ([in] GLenum env,   [in] GLenum pname,   [in] GLint \*params); |
| void | | GetTexEnvxv | ([in] GLenum env,   [in] GLenum pname,   [in] GLfixed \*params); |
| void | | GetTexParameteriv | ([in] GLenum target,   [in] GLenum pname,   [in] GLint \*params); |
| void | | GetTexParameterxv | ([in] GLenum target,   [in] GLenum pname,   [in] GLfixed \*params); |
| void | | Hint | ([in] GLenum target,   [in] GLenum mode); |
| GLboolean | | IsBuffer | ([in] GLuint buffer); |
| GLboolean | | IsEnabled | ([in] GLenum cap); |
| GLboolean | | IsTexture | ([in] GLuint texture); |
| void | | LightModelx | ([in] GLenum pname,   [in] GLfixed param); |
| void | | LightModelxv | ([in] GLenum pname,   [in] const GLfixed \*params); |
| void | | Lightx | ([in] GLenum light,   [in] GLenum pname,   [in] GLfixed param); |
| void | | Lightxv | ([in] GLenum light,   [in] GLenum pname,   [in] const GLfixed \*params); |
| void | | LineWidthx | ([in] GLfixed width); |
| void | | LoadIdentity | ([in] void); |
| void | | LoadMatrixx | ([in] const GLfixed \*m); |
| void | | LogicOp | ([in] GLenum opcode); |
| void | | Materialx | ([in] GLenum face,   [in] GLenum pname,   [in] GLfixed param); |
| void | | Materialxv | ([in] GLenum face,   [in] GLenum pname,   [in] const GLfixed \*params); |
| void | | MatrixMode | ([in] GLenum mode); |
| void | | MultMatrixx | ([in] const GLfixed \*m); |
| void | | MultiTexCoord4x | ([in] GLenum target,   [in] GLfixed s,   [in] GLfixed t,   [in] GLfixed r,   [in] GLfixed q); |
| void | | Normal3x | ([in] GLfixed nx,   [in] GLfixed ny,   [in] GLfixed nz); |
| void | | NormalPointer | ([in] GLenum type,   [in] GLsizei stride,   [in] const GLvoid \*pointer); |
| void | | Orthox | ([in] GLfixed left,   [in] GLfixed right,   [in] GLfixed bottom,   [in] GLfixed top,   [in] GLfixed zNear,   [in] GLfixed zFar); |
| void | | PixelStorei | ([in] GLenum pname,   [in] GLint param); |
| void | | PointParameterx | ([in] GLenum pname,   [in] GLfixed param); |
| void | | PointParameterxv | ([in] GLenum pname,   [in] const GLfixed \*params); |
| void | | PointSizex | ([in] GLfixed size); |
| void | | PolygonOffsetx | ([in] GLfixed factor,   [in] GLfixed units); |
| void | | PopMatrix | ([in] void); |
| void | | PushMatrix | ([in] void); |
| void | | ReadPixels | ([in] GLint x,   [in] GLint y,   [in] GLsizei width,   [in] GLsizei height,   [in] GLenum format,   [in] GLenum type,   [in] GLvoid \*pixels); |
| void | | Rotatex | ([in] GLfixed angle,   [in] GLfixed x,   [in] GLfixed y,   [in] GLfixed z); |
| void | | SampleCoverage | ([in] GLclampf value,   [in] GLboolean invert); |
| void | | SampleCoveragex | ([in] GLclampx value,   [in] GLboolean invert); |
| void | | Scalex | ([in] GLfixed x,   [in] GLfixed y,   [in] GLfixed z); |
| void | | Scissor | ([in] GLint x,   [in] GLint y,   [in] GLsizei width,   [in] GLsizei height); |
| void | | ShadeModel | ([in] GLenum mode); |
| void | | StencilFunc | ([in] GLenum func,   [in] GLint ref,   [in] GLuint mask); |
| void | | StencilMask | ([in] GLuint mask); |
| void | | StencilOp | ([in] GLenum fail,   [in] GLenum zfail,   [in] GLenum zpass); |
| void | | TexCoordPointer | ([in] GLint size,   [in] GLenum type,   [in] GLsizei stride,   [in] const GLvoid \*pointer); |
| void | | TexEnvi | ([in] GLenum target,   [in] GLenum pname,   [in] GLint param); |
| void | | TexEnvx | ([in] GLenum target,   [in] GLenum pname,   [in] GLfixed param); |
| void | | TexEnviv | ([in] GLenum target,   [in] GLenum pname,   [in] const GLint \*params); |
| void | | TexEnvxv | ([in] GLenum target,   [in] GLenum pname,   [in] const GLfixed \*params); |
| void | | TexImage2D | ([in] GLenum target,   [in] GLint level,   [in] GLint internalformat,   [in] GLsizei width,   [in] GLsizei height,   [in] GLint border,   [in] GLenum format,   [in] GLenum type,   [in] const GLvoid \*pixels); |
| void | | TexParameteri | ([in] GLenum target,   [in] GLenum pname,   [in] GLint param); |
| void | | TexParameterx | ([in] GLenum target,   [in] GLenum pname,   [in] GLfixed param); |
| void | | TexParameteriv | ([in] GLenum target,   [in] GLenum pname,   [in] const GLint \*params); |
| void | | TexParameterxv | ([in] GLenum target,   [in] GLenum pname,   [in] const GLfixed \*params); |
| void | | TexSubImage2D | ([in] GLenum target,   [in] GLint level,   [in] GLint xoffset,   [in] GLint yoffset,   [in] GLsizei width,   [in] GLsizei height,   [in] GLenum format,   [in] GLenum type,   [in] const GLvoid \*pixels); |
| void | | Translatex | ([in] GLfixed x,   [in] GLfixed y,   [in] GLfixed z); |
| void | | VertexPointer | ([in] GLint size,   [in] GLenum type,   [in] GLsizei stride,   [in] const GLvoid \*pointer); |
| void | | Viewport | ([in] GLint x,   [in] GLint y,   [in] GLsizei width,   [in] GLsizei height); |
|  | |  |  |
| } | |  |  |

* + 1. **ActiveTexture function**

The function

* + 1. **AlphaFuncx function**

The function

* + 1. **BindBuffer function**

The function

* + 1. **BindTexture function**

The function

* + 1. **BlendFunc function**

The function

* + 1. **Clear function**

The function

* + 1. **ClearColorx function**

The function

* + 1. **ClearDepthx function**

The function

* + 1. **ClearStencil function**

The function

* + 1. **ClientActiveTexture function**

The function

* + 1. **ClipPlanex function**

The function

* + 1. **Color4ub function**

The function

* + 1. **Color4x function**

The function

* + 1. **ColorMask function**

The function

* + 1. **ColorPointer function**

The function

* + 1. **CompressedTexImage2D function**

The function

* + 1. **CompressedTexSubImage2D function**

The function

* + 1. **CopyTexImage2D function**

The function

* + 1. **CopyTexSubImage2D function**

The function

* + 1. **CullFace function**

The function

* + 1. **DeleteBuffers function**

The function

* + 1. **DeleteTextures function**

The function

* + 1. **DepthFunc function**

The function

* + 1. **DepthMask function**

The function

* + 1. **DepthRangex function**

The function

* + 1. **Disable function**

The function

* + 1. **DisableClientState function**

The function

* + 1. **DrawArrays function**

The function

* + 1. **DrawElements function**

The function

* + 1. **Enable function**

The function

* + 1. **EnableClientState function**

The function

* + 1. **Finish function**

The function

* + 1. **Flush function**

The function

* + 1. **Fogx function**

The function

* + 1. **Fogxv function**

The function

* + 1. **FrontFace function**

The function

* + 1. **Frustumx function**

The function

* + 1. **GetBooleanv function**

The function

* + 1. **GetBufferParameteriv function**

The function

* + 1. **GetClipPlanex function**

The function

* + 1. **GenBuffers function**

The function

* + 1. **GenTextures function**

The function

* + 1. **GetError function**

The function **GetError** is retained to return the current error state

* + 1. **GetFixedv function**

The function

* + 1. **GetIntegerv function**

The function

* + 1. **GetLightxv function**

The function

* + 1. **GetMaterialxv function**

The function

* + 1. **GetPointerv function**

The function

* + 1. **glGetString function**

The function

* + 1. **GetTexEnviv function**

The function

* + 1. **GetTexEnvxv function**

The function

* + 1. **GetTexParameteriv function**

The function

* + 1. **GetTexParameterxv function**

The function

* + 1. **Hint function**

The function

* + 1. **IsBuffer function**

The function

* + 1. **IsEnabled function**

The function

* + 1. **IsTexture function**

The function

* + 1. **LightModelx function**

The function

* + 1. **LightModelxv function**

The function

* + 1. **Lightx function**

The function

* + 1. **Lightxv function**

The function

* + 1. **LineWidthx function**

The function

* + 1. **LoadIdentity function**

The function

* + 1. **LoadMatrixx function**

The function

* + 1. **LogicOp function**

The function

* + 1. **Materialx function**

The function

* + 1. **Materialxv function**

The function

* + 1. **MatrixMode function**

The function

* + 1. **MultMatrixx function**

The function

* + 1. **MultiTexCoord4x function**

The function

* + 1. **Normal3x function**

The function

* + 1. **NormalPointer function**

The function

* + 1. **Orthox function**

The function

* + 1. **PixelStorei function**

The function

* + 1. **PointParameterx function**

The function

* + 1. **PointParameterxv function**

The function

* + 1. **PointSizex function**

The function

* + 1. **PolygonOffsetx function**

The function

* + 1. **PopMatrix function**

The function

* + 1. **PushMatrix function**

The function

* + 1. **ReadPixels function**

The function

* + 1. **Rotatex function**

The function

* + 1. **SampleCoverage function**

The function

* + 1. **SampleCoveragex function**

The function

* + 1. **Scalex function**

The function

* + 1. **Scissor function**

The function

* + 1. **ShadeModel function**

The function

* + 1. **StencilFunc function**

The function

* + 1. **StencilMask function**

The function

* + 1. **StencilOp function**

The function

* + 1. **TexCoordPointer function**

The function

* + 1. **TexEnvi function**

The function

* + 1. **TexEnvx function**

The function

* + 1. **TexEnviv function**

The function

* + 1. **TexEnvxv function**

The function

* + 1. **TexImage2D function**

The function

* + 1. **TexParameteri function**

The function

* + 1. **TexParameterx function**

The function

* + 1. **TexParameteriv function**

The function

* + 1. **TexParameterxv function**

The function

* + 1. **TexSubImage2D function**

The function

* + 1. **Translatex function**

The function

* + 1. **VertexPointer function**

The function

* + 1. **Viewport function**

The function

1. **IEcoVideoCoreIV1V3DContext Interface**
   1. **IEcoVideoCoreIV1V3DContext IDL**

|  |
| --- |
| **ECO IDL** |
| import "IEcoBase1.idl" | | | |
| [  object,  uguid(3377E94B-10ED-4471-99CA-A7AB6B165EAC),  ] | | | |
| interface IEcoVideoCoreIV1V3DContext : IEcoUnknown { | | | |
|  | | | |
| int16\_t | | ***AllocMemBuffer*** | ([in] uint32\_t size,  [out] ECO\_VC\_IV\_V3D\_MEM\_BUFFER\*\* ppMemBuffer); |
|  | | | |
| int16\_t | | ***FreeMemBuffer*** | ([in] ECO\_VC\_IV\_V3D\_MEM\_BUFFER\* pMemBuffer); |
|  | |  |  |
| ECO\_VC\_IV\_V3D\_MEM\_BUFFER\* | | ***get\_ControlList*** | ( [in] uint8\_t mode); |
|  | |  |  |
| void | | ***set\_ControlList*** | ([in] uint8\_t mode,  [in] ECO\_VC\_IV\_V3D\_MEM\_BUFFER\* pControlList); |
|  | |  |  |
| int16\_t | | ***EmitControlRecord*** | ([in] ECO\_VC\_IV\_V3D\_MEM\_BUFFER\* pControlList,  [in] uint8\_t idCode,  [in] uint8\_t\* pData,  [in] uint32\_t length); |
|  | |  |  |
| int16\_t | | ***RenderFrame*** | ([in] ECO\_VC\_IV\_V3D\_MEM\_BUFFER\* pBinningControlList,  [in] ECO\_VC\_IV\_V3D\_MEM\_BUFFER\* pRenderingControlList); |
|  | |  |  |
| } | |  |  |

* + 1. **AllocMemBuffer function**

The function

* + 1. **FreeMemBuffer function**

The function

* + 1. **get\_ControlList function**

The function

* + 1. **set\_ControlList function**

The function

* + 1. **EmitControlRecord function**

The function

* + 1. **RenderFrame function**

The function

1. **IEcoVideoCoreIV1V3DRegisters Interface**
   1. **IEcoVideoCoreIV1V3DRegisters IDL**

|  |
| --- |
| **ECO IDL** |
| import "IEcoBase1.idl" | | | |
| [  object,  uguid(C0E5C5AC-0080-4E7C-9D3A-CD2BAAC4BA16),  ] | | | |
| interface IEcoVideoCoreIV1V3DRegisters : IEcoUnknown { | | | |
|  | | | |
| int16\_t | | ***set\_ConfigDescriptor*** | ([in] ECO\_V3D\_CONFIG\_DESCRIPTOR\* config);; |
|  | | | |
| ECO\_V3D\_CONFIG\_DESCRIPTOR\* | | ***get\_ConfigDescriptor*** | ([in] void); |
|  | |  |  |
| } | |  |  |

* + 1. **set\_ConfigDescriptor function**

The function

* + 1. **get\_ConfigDescriptor function**

The function

1. **IEcoOpenGLES1iOS Interface**
   1. **IEcoOpenGLES1iOS IDL**

|  |
| --- |
| **ECO IDL** |
| import "IEcoBase1.idl"  import "IEcoOpenGLES1.idl"  import "IEcoOpenGLES1Context.idl"  import "IEcoOpenGLES1Common.idl" | | | |
| [  object,  uguid(068927B7-1376-42C0-9AA3-398FDC773F22),  ] | | | |
| interface IEcoOpenGLES1iOS : IEcoOpenGLES1 { | | | |
|  | | | |
| int16\_t | | ***CreateContextByPlatform*** | ([in] NSOpenGLContext\* context,  [in] NSOpenGLPixelFormat\* pixelFormat,  [out] IEcoOpenGLES1Context\*\* ppIRenderContext); |
|  | | | |
| NSOpenGLContext\* | | ***get\_Context*** | ([in] void); |
|  | |  |  |
| NSOpenGLPixelFormat\* | | ***get\_PixelFormat*** | ([in] void); |
|  | |  |  |
| } | |  |  |

* + 1. **CreateContextByPlatform function**

The function

* + 1. **get\_Context function**

The function

* + 1. **get\_PixelFormat function**

The function

1. **IEcoOpenGLES1Linux Interface**
   1. **IEcoOpenGLES1Linux IDL**

|  |
| --- |
| **ECO IDL** |
| import "IEcoBase1.idl"  import "IEcoOpenGLES1.idl"  import "IEcoOpenGLES1Context.idl"  import "IEcoOpenGLES1Common.idl" | | | |
| [  object,  uguid(3173777D-EF86-46ED-93D0-A74E2A828519),  ] | | | |
| interface IEcoOpenGLES1Linux : IEcoOpenGLES1 { | | | |
|  | | | |
| int16\_t | | ***CreateContextByPlatform*** | ([in] Display \*display,  [in] Window window,  [in] XVisualInfo\* visualInfo,  [out] IEcoOpenGLES1Context\*\* ppIRenderContext); |
|  | | | |
| Display\* | | ***get\_Display*** | ([in] void); |
|  | |  |  |
| Window\* | | ***get\_Window*** | ([in] void); |
|  | |  |  |
| } | |  |  |

* + 1. **CreateContextByPlatform function**

The function

* + 1. **get\_Display function**

The function

* + 1. **get\_Window function**

The function

1. **IEcoOpenGLES1MacOSX Interface**
   1. **IEcoOpenGLES1MacOSX IDL**

|  |
| --- |
| **ECO IDL** |
| import "IEcoBase1.idl"  import "IEcoOpenGLES1.idl"  import "IEcoOpenGLES1Context.idl"  import "IEcoOpenGLES1Common.idl" | | | |
| [  object,  uguid(A4F8C73F-6260-4ADC-9A5A-252E732FE0C7),  ] | | | |
| interface IEcoOpenGLES1MacOSX : IEcoOpenGLES1 { | | | |
|  | | | |
| int16\_t | | ***CreateContextByPlatform*** | ([in] NSOpenGLContext\* context,  [in] NSOpenGLPixelFormat\* pixelFormat,  [out] IEcoOpenGLES1Context\*\* ppIRenderContext); |
|  | | | |
| NSOpenGLContext\* | | ***get\_Context*** | ([in] void); |
|  | |  |  |
| NSOpenGLPixelFormat\* | | ***get\_PixelFormat*** | ([in] void); |
|  | |  |  |
| } | |  |  |

* + 1. **CreateContextByPlatform function**

The function

* + 1. **get\_Context function**

The function

* + 1. **get\_PixelFormat function**

The function

1. **IEcoOpenGLES1Windows Interface**
   1. **IEcoOpenGLES1Windows IDL**

|  |
| --- |
| **ECO IDL** |
| import "IEcoBase1.idl"  import "IEcoOpenGLES1.idl"  import "IEcoOpenGLES1Context.idl"  import "IEcoOpenGLES1Common.idl" | | | |
| [  object,  uguid(D0555057-54EA-4AA5-A88F-1F87FDD06D21),  ] | | | |
| interface IEcoOpenGLES1Windows : IEcoOpenGLES1 { | | | |
|  | | | |
| int16\_t | | ***CreateContextByPlatform*** | ([in] HDC hDC,  [out] IEcoOpenGLES1Context\*\* ppIRenderContext) |
|  | | | |
| HDC | | ***get\_DeviceContext*** | ([in] void); |
|  | |  |  |
| } | |  |  |

* + 1. **CreateContextByPlatform function**

The function

* + 1. **get\_DeviceContext function**

The function

1. **IEcoOpenGLES1Android Interface**
   1. **IEcoOpenGLES1Android IDL**

|  |
| --- |
| **ECO IDL** |
| import "IEcoBase1.idl"  import "IEcoOpenGLES1.idl"  import "IEcoOpenGLES1Context.idl"  import "IEcoOpenGLES1Common.idl" | | | |
| [  object,  uguid(A0C9A170-4572-4023-87CF-B09235B9A03E),  ] | | | |
| interface IEcoOpenGLES1Android : IEcoOpenGLES1 { | | | |
|  | | | |
| int16\_t | | ***CreateContextByPlatform*** | ([in] ANativeWindow\* window,  [out] IEcoOpenGLES1Context\*\* ppIRenderContext) |
|  | | | |
| ANativeWindow\* | | ***get\_Window*** | ([in] void); |
|  | |  |  |
| } | |  |  |

* + 1. **CreateContextByPlatform function**

The function

* + 1. ***get\_Window* function**

The function

1. **Коды ошибок**

Следующая таблица содержит коды ошибок.

|  |  |  |
| --- | --- | --- |
| **Код ошибки** | **Значение** | **Описание** |
| ERR\_ECO\_SUCCESES | 0x0000 | Выполнено успешно. Ошибок нет. |
| ERR\_ECO\_UNEXPECTED | 0xFFFF | Непредвиденное условие. |
| ERR\_ECO\_POINTER | 0xFFEE | Было передано неправильное значение указателя. |
| ERR\_ECO\_NOINTERFACE | 0xFFED | Такой интерфейс не поддерживается. |
| ERR\_ECO\_COMPONENT\_NOTFOUND | 0xFFE9 | Компонент не найден. |
|  |  |  |
|  |  |  |

# **Приложение А: Обучающие программы**