

NEON86

LEGEND

color: Color(r,g,b,a=255)
vec: Vector3 / Vector4
mat: Matrix
tex: Material / RTT / texture handle
rtt: Render Target
texHandle: texture handle
eye.at.up: Vector3
key: "a" or KEY_SPACE etc.
su.tv: UV coordinates (floats)
nx.ny.nz: normal
v1.v2.v3: Vertex

EVENTS

_init()
_shutdown()
_update(dt)
_render()
_render2D()
_charInput(letter)

BASE

ShowMessage(caption, text)
LogString(text)
ExitGame()
RestartGame()
IsDebugMode()
SetFPS(fps)
doFile(scriptName)
loadFile(fileName)
getTime()

AUDIO

SOUND

Sound(wavPath)
play()

Pause()
stop()
setVolume(vol)
setPan(val)
setCursor(val)
loop(state)
isLooping()
isPlaying()
getVolume()
getPan()
getCursor()
getData()

MATH

Color(r,g,b,a=255)
ColorLinear(r,g,b,a=1.0)
str2vec(text)
vec2str(vec)

MATRIX

Matrix()
translate(x,y,z)
rotate(x,y,z)
scale(x,y,z)
inverse()
shadow(planeVec,lightVec)
reflect(planeVec)
lookAt(eye.at.up)
m(row,col)
row(index)
col(index)
bind(kind)

VECTOR

Vector3(x,y,z)
Vector4(x,y,z,w)
cross(vec)
get()
color()

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mag0
mag540
lerp(b,t)
neg0
normalize0
n(index,val)
x0.y0.z0.w0

RENDERER

ClearScene(color)
CameraPerspective(fov,near,far,flipLH)
CameraOrthographic(w,h,near,fart,flipLH)
BindTexture(tex)
GetResolution0
GetMatrix(kind)
IsFocused0
RenderState(kind,state)
ToggleWireframe(state)
SetFog(color,kind,start,end)
SetFog(color,kind,density)
ClearFog0
SamplerState(stage,kind,state)
EnableLighting(state)
AmbientColor(color)
ClearTarget0
DrawBox(mat,dims,color)
DrawQuad(x1,x2,y1,y2,color,flipY)
DrawQuad3D(x1,x2,y1,y2,z1,z2,color)
DrawPolygon(v1,v2,v3)
CullMode(mode)
FillScreen(color,flipY)
RegisterFontFile(Path)

SCENE

Scene(modelName,loadMaterials=true,optimizeMesh=false)
draw(mat)
drawSubset(index,mat)

loadModel(modelName,loadMaterials=true,optimizeMesh=false)
loadScene(modelName,loadMaterials=true,optimizeMesh=false)
getMeshes0
getLights0
getFlattenNodes0
getTargets0
findMesh(name)
findLight(name)
findTarget(name)
getRootNode0

NODE

Node0
clone0
getName0
setName(name)
getTransform0
setTransform(mat)
getFinalTransform0
addNode(node)
addMesh(mesh)
draw(mat)
drawSubset(index, mat)
getMeshes0
getMeshParts0
getLights0
getTargets0
getNodes0
findMesh(name)
findLight(name)
findTarget(name)
findNode(name)
getMeta(name)

MESH

Mesh0
addFGroup(Part)

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```
addPart(Part)
draw(mat)
clone()
getFGroups()
getParts()
clear()
setName(name)
getName()
setMaterial(stage.tex)
getMaterial(stage)
```

PART / FACEGROUP

```
FaceGroup()
clone()
addVertex(vert)
addIndex(index)
addTriangle(a,b,c)
setMaterial(stage.mat)
getMaterial(stage)
getMaterialStage()
draw(mat)
build()
calcNormals()
clear()
getVertices()
getIndices()
```

MATERIAL

```
Material()
Material(textureName)
Material(w,h)
setSamplerState(sampler.state)
getSamplerState(sampler)
loadFile(textureName)
res()
data()
getHandle(slot)
setHandle(slot.texHandle)
setDiffuse(color)
```

```
setAmbient(color)
setSpecular(color)
setEmission(color)
setPower(val)
setOpacity(val)
alphaIsTransparency(state)
alphaTest(state)
setAlphaRef(val)
setShaded(state)
```

VERTEX

```
Vertex(x,y,z,su,tv,color,nx,ny,nz)
get()
```

FONT

```
Font(fontFamily,size,boldness,italic)
drawText(color,text,x,y,w=0,h=0,flags)
measureText(text,flags,width)
```

RENDER TARGET

```
RenderTarget()
RenderTarget(w,h)
RenderTarget(w,h,hasDepth=false)
getHandle()
bind()
```

EFFECT

```
Effect(effectPath)
begin(technique)
end().flush()
beginPass(pass)
endPass()
commit()
setBool(name,val)
setFloat(name,val)
setMatrix(name.mat)
setVector3(name.vec)
setVector4(name.vec)
setInteger(name,val)
setTexture(name.texHandle)
```

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```
setTexture(name.slot.mat)  
setTexture(name.rtt)
```

LIGHT

```
Light(slot)  
enable(state.slot)  
setPosition(vec)  
setDirection(vec)  
setDiffuse(color)  
setSpecular(color)  
setAmbient(color)  
setRange(val)  
setFalloff(val)  
setAttenuation(a,b,c)  
setInnerAngle(val)  
setOuterAngle(val)  
setType(kind)  
setSlot(slot)  
getType()  
getSlot()
```

INPUT

```
GetKey(key)  
GetKeyDown(key)  
GetKeyUp(key)  
GetMouseXY()  
GetMouseDelta()  
SetMouseXY(x,y)  
GetMouse(button)  
GetMouseDown(button)  
GetMouseUp(button)  
IsCursorVisible()  
ShowCursor(state)  
GetCursorMode()  
SetCursorMode(mode)  
ShowCursor(state)
```

GLOBALS

RENDERER

```
PRIMITIVEKIND_POINTLIST  
PRIMITIVEKIND_LINELIST  
PRIMITIVEKIND_LINESTRIP  
PRIMITIVEKIND_TRIANGLELIST  
PRIMITIVEKIND_TRIANGLESTRIP  
PRIMITIVEKIND_TRIANGLEFAN
```

```
MATRIXKIND_VIEW  
MATRIXKIND_PROJECTION  
MATRIXKIND_TEXTURE0  
MATRIXKIND_TEXTURE1  
MATRIXKIND_TEXTURE2  
MATRIXKIND_TEXTURE3  
MATRIXKIND_TEXTURE4  
MATRIXKIND_TEXTURE5  
MATRIXKIND_TEXTURE6  
MATRIXKIND_TEXTURE7  
MATRIXKIND_WORLD
```

```
CLEARFLAG_COLOR  
CLEARFLAG_DEPTH  
CLEARFLAG_STENCIL  
CLEARFLAG_STANDARD
```

```
TEXTURESLOT_ALBEDO  
TEXTURESLOT_SPECULAR  
TEXTURESLOT_NORMAL  
TEXTURESLOT_DISPLACE  
TEXTURESLOT_USER_END  
MAX_TEXTURE_SLOTS
```

```
FOGKIND_NONE  
FOGKIND_EXP  
FOGKIND_EXP2
```

FOGKIND_LINEAR

WORLD

VIEW

PROJ

CULLKIND_NONE

CULLKIND_CW

CULLKIND_CCW

LIGHTKIND_DIRECTIONAL

LIGHTKIND_POINT

LIGHTKIND_SPOT

RENDERSTATE_ZENABLE

RENDERSTATE_FILLMODE

RENDERSTATE_SHADEMODE

RENDERSTATE_ZWRITEENABLE

RENDERSTATE_ALPHATESTENABLE

RENDERSTATE_LASTPIXEL

RENDERSTATE_SRCBLEND

RENDERSTATE_DESTBLEND

RENDERSTATE_CULLMODE

RENDERSTATE_ZFUNC

RENDERSTATE_ALPHAREF

RENDERSTATE_ALPHAFUNC

RENDERSTATE_DITHERENABLE

RENDERSTATE_ALPHABLENDENABLE

RENDERSTATE_FOGENABLE

RENDERSTATE_SPECULARENABLE

RENDERSTATE_FOGCOLOR

RENDERSTATE_FOGTABLEMODE

RENDERSTATE_FOGSTART

RENDERSTATE_FOGEND

RENDERSTATE_FOGDENSITY

RENDERSTATE_RANGEFOGENABLE

RENDERSTATE_STENCILENABLE

RENDERSTATE_STENCILFAIL

RENDERSTATE_STENCILZFAIL

RENDERSTATE_STENCILPASS

RENDERSTATE_STENCILFUNC

RENDERSTATE_STENCILREF

RENDERSTATE_STENCILMASK

RENDERSTATE_STENCILWRITEMASK

RENDERSTATE_TEXTUREFACTOR

RENDERSTATE_WRAP0

RENDERSTATE_WRAP1

RENDERSTATE_WRAP2

RENDERSTATE_WRAP3

RENDERSTATE_WRAP4

RENDERSTATE_WRAP5

RENDERSTATE_WRAP6

RENDERSTATE_WRAP7

RENDERSTATE_CLIPPING

RENDERSTATE_LIGHTING

RENDERSTATE_AMBIENT

RENDERSTATE_FOGVERTEXMODE

RENDERSTATE_COLORVERTEX

RENDERSTATE_LOCALVIEWER

RENDERSTATE_NORMALIZENORMALS

RENDERSTATE_DIFFUSEMATERIALSOURCE

RENDERSTATE_SPECULARMATERIALSOURCE

RENDERSTATE_AMBIENTMATERIALSOURCE

RENDERSTATE_EMISSIVEMATERIALSOURCE

RENDERSTATE_VERTEXBLEND

RENDERSTATE_CLIPPLANEENABLE

RENDERSTATE_POINTSIZE

RENDERSTATE_POINTSIZE_MIN

RENDERSTATE_POINTSPRITEENABLE

RENDERSTATE_POINTSCALEENABLE

RENDERSTATE_POINTSCALE_A

RENDERSTATE_POINTSCALE_B

RENDERSTATE_POINTSCALE_C

RENDERSTATE_MULTISAMPLEANTIALIAS

RENDERSTATE_MULTISAMPLEMASK
RENDERSTATE_PATCHEDGESTYLE
RENDERSTATE_DEBUGMONITORTOKEN
RENDERSTATE_POINTSIZE_MAX
RENDERSTATE_INDEXEDVERTEXBLENDENABLE
RENDERSTATE_COLORWRITEENABLE
RENDERSTATE_TWEENFACTOR
RENDERSTATE_BLENDOP
RENDERSTATE_NORMALDEGREE
RENDERSTATE_SCISSORTESTENABLE
RENDERSTATE_SLOPESCALEDDEPTHBIAS
RENDERSTATE_ANTIALIASEDLINEENABLE
RENDERSTATE_MINTESSELLATIONLEVEL
RENDERSTATE_MAXTESSELLATIONLEVEL
RENDERSTATE_ADAPTIVETESS_X
RENDERSTATE_ADAPTIVETESS_Y
RENDERSTATE_ADAPTIVETESS_Z
RENDERSTATE_ADAPTIVETESS_W
RENDERSTATE_ENABLEADAPTIVETESSELLATION
RENDERSTATE_TWOSIDEDSTENCILMODE
RENDERSTATE_CCW_STENCILFAIL
RENDERSTATE_CCW_STENCILZFAIL
RENDERSTATE_CCW_STENCILPASS
RENDERSTATE_CCW_STENCILFUNC
RENDERSTATE_COLORWRITEENABLE1
RENDERSTATE_COLORWRITEENABLE2
RENDERSTATE_COLORWRITEENABLE3
RENDERSTATE_BLENDFACTOR
RENDERSTATE_SRGBWRITEENABLE
RENDERSTATE_DEPTHBIAS
RENDERSTATE_WRAP8
RENDERSTATE_WRAP9
RENDERSTATE_WRAP10
RENDERSTATE_WRAP11
RENDERSTATE_WRAP12
RENDERSTATE_WRAP13
RENDERSTATE_WRAP14

RENDERSTATE_WRAP15
RENDERSTATE_SEPARATEALPHABLENDENABLE
RENDERSTATE_SRCBLENDALPHA
RENDERSTATE_DESTBLENDALPHA
RENDERSTATE_BLENDOPALPHA

SAMPLERSTATE_ADDRESSU
SAMPLERSTATE_ADDRESSV
SAMPLERSTATE_ADDRESSW
SAMPLERSTATE_BORDERCOLOR
SAMPLERSTATE_MAGFILTER
SAMPLERSTATE_MINFILTER
SAMPLERSTATE_MIPFILTER
SAMPLERSTATE_MIPMAPLODBIAS
SAMPLERSTATE_MAXMIPLEVEL
SAMPLERSTATE_MAXANISOTROPY
SAMPLERSTATE_SRGBTEXTURE
SAMPLERSTATE_ELEMENTINDEX
SAMPLERSTATE_DMAPOFFSET

TEXTF_NONE
TEXTF_POINT
TEXTF_LINEAR
TEXTF_ANISOTROPIC
TEXTF_PYRAMIDALQUAD
TEXTF_GAUSSIANQUAD

TEXTA_WRAP
TEXTA_MIRROR
TEXTA_CLAMP
TEXTA_BORDER
TEXTA_MIRRORONCE

INPUT

MOUSE_LEFT_BUTTON
MOUSE_MIDDLE_BUTTON
MOUSE_RIGHT_BUTTON
MOUSE_WHEEL_UP

MOUSE_WHEEL_DOWN

CURSORMODE_DEFAULT
CURSORMODE_CENTERED
CURSORMODE_WRAPPED

KEY_LBUTTON
KEY_RBUTTON
KEY_CANCEL
KEY_MBUTTON
KEY_XBUTTON1
KEY_XBUTTON2
KEY_BACK
KEY_TAB
KEY_CLEAR
KEY_RETURN
KEY_SHIFT
KEY_CONTROL
KEY_MENU
KEY_PAUSE
KEY_CAPITAL
KEY_KANA
KEY_HANGEUL
KEY_HANGUL
KEY_JUNJA
KEY_FINAL
KEY_HANJA
KEY_KANJI
KEY_ESCAPE
KEY_CONVERT
KEY_NONCONVERT
KEY_ACCEPT
KEY_MODECHANGE
KEY_SPACE
KEY_PRIOR
KEY_NEXT
KEY_END

KEY_HOME
KEY_LEFT
KEY_UP
KEY_RIGHT
KEY_DOWN
KEY_SELECT
KEY_PRINT
KEY_EXECUTE
KEY_SNAPSHOT
KEY_INSERT
KEY_DELETE
KEY_HELP
KEY_LWIN
KEY_RWIN
KEY_APPS
KEY_SLEEP
KEY_NUMPAD0
KEY_NUMPAD1
KEY_NUMPAD2
KEY_NUMPAD3
KEY_NUMPAD4
KEY_NUMPAD5
KEY_NUMPAD6
KEY_NUMPAD7
KEY_NUMPAD8
KEY_NUMPAD9
KEY_MULTIPLY
KEY_ADD
KEY_SEPARATOR
KEY_SUBTRACT
KEY_DECIMAL
KEY_DIVIDE
KEY_F1
KEY_F2
KEY_F3
KEY_F4
KEY_F5

KEY_F6
KEY_F7
KEY_F8
KEY_F9
KEY_F10
KEY_F11
KEY_F12
KEY_F13
KEY_F14
KEY_F15
KEY_F16
KEY_F17
KEY_F18
KEY_F19
KEY_F20
KEY_F21
KEY_F22
KEY_F23
KEY_F24
KEY_NAVIGATION_VIEW
KEY_NAVIGATION_MENU
KEY_NAVIGATION_UP
KEY_NAVIGATION_DOWN
KEY_NAVIGATION_LEFT
KEY_NAVIGATION_RIGHT
KEY_NAVIGATION_ACCEPT
KEY_NAVIGATION_CANCEL
KEY_NUMLOCK
KEY_SCROLL
KEY_OEM_NEC_EQUAL
KEY_OEM_FJ_JISHO
KEY_OEM_FJ_MASSHOU
KEY_OEM_FJ_TOUROKU
KEY_OEM_FJ_LOYA
KEY_OEM_FJ_ROYA
KEY_LSHIFT
KEY_RSHIFT

KEY_LCONTROL
KEY_RCONTROL
KEY_LMENU
KEY_RMENU
KEY_BROWSER_BACK
KEY_BROWSER_FORWARD
KEY_BROWSER_REFRESH
KEY_BROWSER_STOP
KEY_BROWSER_SEARCH
KEY_BROWSER_FAVORITES
KEY_BROWSER_HOME
KEY_VOLUME_MUTE
KEY_VOLUME_DOWN
KEY_VOLUME_UP
KEY_MEDIA_NEXT_TRACK
KEY_MEDIA_PREV_TRACK
KEY_MEDIA_STOP
KEY_MEDIA_PLAY_PAUSE
KEY_LAUNCH_MAIL
KEY_LAUNCH_MEDIA_SELECT
KEY_LAUNCH_APP1
KEY_LAUNCH_APP2
KEY_OEM_1
KEY_OEM_PLUS
KEY_OEM_COMMA
KEY_OEM_MINUS
KEY_OEM_PERIOD
KEY_OEM_2
KEY_OEM_3
KEY_GAMEPAD_A
KEY_GAMEPAD_B
KEY_GAMEPAD_X
KEY_GAMEPAD_Y
KEY_GAMEPAD_RIGHT_SHOULDER
KEY_GAMEPAD_LEFT_SHOULDER
KEY_GAMEPAD_LEFT_TRIGGER
KEY_GAMEPAD_RIGHT_TRIGGER

KEY_GAMEPAD_DPAD_UP	KEY_OEM_COPY
KEY_GAMEPAD_DPAD_DOWN	KEY_OEM_AUTO
KEY_GAMEPAD_DPAD_LEFT	KEY_OEM_ENLW
KEY_GAMEPAD_DPAD_RIGHT	KEY_OEM_BACKTAB
KEY_GAMEPAD_MENU	KEY_ATTN
KEY_GAMEPAD_VIEW	KEY_CRSEL
KEY_GAMEPAD_LEFT_THUMBSTICK_BUTTON	KEY_EXSEL
KEY_GAMEPAD_RIGHT_THUMBSTICK_BUTTON	KEY_EREOF
KEY_GAMEPAD_LEFT_THUMBSTICK_UP	KEY_PLAY
KEY_GAMEPAD_LEFT_THUMBSTICK_DOWN	KEY_ZOOM
KEY_GAMEPAD_LEFT_THUMBSTICK_RIGHT	KEY_NONAME
KEY_GAMEPAD_LEFT_THUMBSTICK_LEFT	KEY_PA1
KEY_GAMEPAD_RIGHT_THUMBSTICK_UP	KEY_OEM_CLEAR
KEY_GAMEPAD_RIGHT_THUMBSTICK_DOWN	
KEY_GAMEPAD_RIGHT_THUMBSTICK_RIGHT	
KEY_GAMEPAD_RIGHT_THUMBSTICK_LEFT	
KEY_OEM_4	
KEY_OEM_5	
KEY_OEM_6	
KEY_OEM_7	
KEY_OEM_8	
KEY_OEM_AX	
KEY_OEM_102	
KEY_ICO_HELP	
KEY_ICO_00	
KEY_PROCESSKEY	
KEY_ICO_CLEAR	
KEY_PACKET	
KEY_OEM_RESET	
KEY_OEM_JUMP	
KEY_OEM_PA1	
KEY_OEM_PA2	
KEY_OEM_PA3	
KEY_OEM_WSCtrl	
KEY_OEM_CUSEL	
KEY_OEM_ATTN	
KEY_OEM_FINISH	