Candera Device

CLUT Bitmap Format

A new bitmap format, CLUT(color lookup table), has been added. This format offers compression by replacing the full RGB image with a palette having a limited number of entries and a color table which will contains references to the lookup index. In SceneComposer, the platform specific converter can be used to do the conversion of the bitmap into an indexed color format.

Added support for native invalid values for EGL display, surface and context types

Previous versions of Candera Device Package do not allow null values for EGL display, surface and context types. To overcome this limitation, support for native invalid values for EGL display, surface and context types has been added.

For this, three preprocessor defines were added in Candera:

- INVALID_NATIVE_EGL_CONTEXT
- INVALID_NATIVE_EGL_DISPLAY
- INVALID_NATIVE_EGL_WINDOW

In order to add custom invalid values for EGL display, surface and context types, one must override this defines with the desired values. For this, a header file must be created which first undefines and then defines the desired invalid values for INVALID_NATIVE_EGL_CONTEXT, INVALID_NATIVE_EGL_DISPLAY and INVALID_NATIVE_EGL_WINDOW. *EglInvalidValues.h* is the default header file used by Candera which can serve as a template for creating custom header files. In order to be take into account, this custom header file must be specified using the new CMake variable NATIVE_EGL_INVALID_VALUES_HEADER when the project is configured.

3DRendererAPI string

Candera::DevicePackageDescriptor::RenderDevice3DCapabilities structure has been extened with a string that specifies the 3D render engine API that it is used by the current or the target device.

Context caching

When RenderStateCaching is enabled, native calls to context activation (e.g. eglMakeCurrent) have to be avoided, because they will unsynchronize the cache. Activation of contexts can still be done via activation of Candera objects like: RenderTarget, ContextResourcePool or GduContext.

Perspective Viewport in 2D

The 2D Render Device has been enhanced to support setting a viewport used for perspective warping. This method can be used on platforms supporting such 2.5D effects.

See also:

RenderDevice2D::SetPerspectiveViewport()

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