# Candera Base

## Post Processing System

The new Post Processing System provides an interface to the user to implement their own post processing effects. Such effects are attached to cameras and get callbacks from the system every time the corresponding camera has finished rendering its scene. The effect then processes the camera's render target, and the system routes the render target automatically through the stack of effects.

For ease of use, post processing effects can also be scripted using Lua.

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## Math numeric stabilization

Standard rotation values like 0, 90, 180, 270 degree should result in stable matrix values. But, due to the calculation of the rotation matrix values the resulting rotated position values have been quite unstable. Therefore, these values are handled separately. Including an optimized handling of rotation value 0 (which no longer leads to sine and cosine calculations). The Math interface of Candera has been extended by NormalizeDegree and DegreeSineAndCosine to implement this optimization.

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## Candera::WidgetBase::SetStringId with disposer deprecated

The SetStringId interface with a disposer function of WidgetBase has been deprecated due to optimization of the the StringId memory consumption.

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## Touch event extended

Due to extension in the controls the touch event has been extended by a camera. For details please take a look into controls change log. Beside the additional camera parameter of the touch event the GraphicDeviceUnit interface has been extended by a GetSourceId method to enable an improved sorting of touchable behaviours in the controls.

## Glyph Atlas Outline

The glyph atlas has been extended to support glyph outlines.

## ThreadedAssetProviderDispatched Outline

Class ThreadedAssetProviderDispatched was updated to offer access the worker thread. This allows to set the worker thread priority.

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